THE MODAL ARGUMENT FOR THE EXISTENCE OF GOD

A Thesis
Presented to the Faculty of the Graduate School
of Cornell University for the Degree of
Doctor of Philosophy

by
Robert Merrihew Adams
February 1969

BIOGRAPHICAL SKETCH

Robert Merrihew Adams was born September 8, 1937, at Philadelphia, Pennsylvania. He has received the degrees of Bachelor of Arts in Philosophy from Princeton University in June, 1959; Bachelor of Arts in Theology and Master of Arts from Oxford University in July, 1961, and May, 1965, respectively; Bachelor of Divinity from Princeton Theological Seminary in June, 1962; and Master of Arts in Philosophy from Cornell University in June, 1967. He was pastor of the Montauk Community Church (Presbyterian) in Montauk, New York, from July, 1962, to July, 1965. Since August, 1968, he has been Lecturer in Philosophy at the University of Michigan. He has published an article, "Anticipation and Consummation," in Theology Today, Vol. XX (1963), pp. 196-211, and a review of Charles Hartshorne's A Natural Theology for Our Time in the January, 1969, issue of The Philosophical Review. He is a member of Phi Beta Kappa and Phi Kappa Phi Honorary Societies.

For Marilyn

ACKNOWLEDGMENTS

I should like to record my thanks to a number of people who have helped and encouraged me in preparing this dissertation. Nelson Pike was the chairman of my special committee during most of the writing of the dissertation; he read several drafts of all its parts, and his criticisms helped me greatly--not least in getting the material organized. Norman Malcolm and Arthur Fine, the other members of my special committee at that time, both read complete drafts of the dissertation and offered substantial criticisms which have led to revisions. My thanks are also due to Norman Kretzmann, my present chairman, and David Lyons, who, with Arthur Fine, make up my present committee, for their very helpful participation. I have also benefited from earlier work that I did on ontological arguments under the guidance and encouragement of John Marsh and John Hick, and from a course in philosophy of religion in which I assisted Robert Coburn. Versions of Chapter Seven have been presented to colloquia at Cornell and at the University of Michigan; I am indebted to participants in those discussions for helpful criticisms.

Among the authors whom I have discussed, and criticized, in the dissertation, I think I owe a special appreciation to Charles Hartshorne. It was his book on The Logic of Perfection that opened my eyes to the formal structure of the modal argument for the existence of God and, to that extent, made this dissertation possible.

My greatest indebtedness is to my wife, Marilyn McCord Adams. She has read, and listened to, and criticized countless drafts. She has typed drafts and helped greatly in assembling the Bibliography. All this, in addition to putting up with the preoccupations of authorship in me!

CONTENTS

Page

Chapter One: Introduction 1

Part One: The Logic of the Argument

Chapter Two: Syntactical Considerations 6

Chapter Three: Semantical Considerations. 23

Part Two: The First Premise

Introduction to Part Two 44

Chapter Four: Anselm on Perfection and Necessary Existence. 49

Chapter Five: Malcolm and Hartshorne--Two Recent Arguments for Premise I 72

Chapter Six: Plantinga on Necessary Being 84

Part Three: The Second Premise

Introduction to Part Three 98

Chapter Seven: Can Affirmative Existential Propositions Be Logically Necessary?. 101

Chapter Eight: Special Objections to the Logically Necessary Existence of God 128

Chapter Nine: Presumptions of Possibility 142

Chapter Ten: Malcolm on the Consistency of the Concept of God . . .156

Chapter Eleven: Conceptual Frameworks 180

Conclusion 202

Appendix 204

Notes. 205

Bibliography 217

CHAPTER ONE: INTRODUCTION

By "the modal argument for the existence of God" I mean an argument purporting to prove that God exists, using only the following two premises, together with certain principles of modal logic.

(I) It is a necessary truth that if God exists it is a necessary truth that God exists.

(II) It is not a necessary truth that God does not exist.

The whole of this dissertation will be devoted to an examination of the logical form or forms of this argument and the reasons which may be given for or against the truth of its premises. But it may be helpful to present at the outset an informal sketch of one form of the argument, including a more or less arbitrary sample of argument for the two premises. This sketch is not intended as a definitive formulation of anything. Its purpose is solely to give the reader a quick overview of the argument.

The argument begins with the proposition that it is a necessary truth that God, if He exists at all, exists necessarily[1] (Premise I). No being which might not have existed, which is dependent on something else for its existence, or which merely happens to exist, could be considered a perfect being or an adequate object of unqualified trust. Only a being whose existence is necessary can satisfy those qualifications; and only a being satisfying those qualifications could be considered to be God. Therefore God could not exist otherwise than necessarily; the contingent existence of God is impossible.

But if God in fact does not exist, a fortiori His nonexistence is possible, which is the same as to say that His existence is not necessary. According to an axiom of modal logic (of which we shall have much to say later), if something is not necessarily the case, it is necessary that it is not necessarily the case--as, similarly, if something is possible (i.e., not necessarily not the case), it is necessary that it is possible. So if God does not exist and His existence is therefore not necessary, then it is necessary that His existence is not necessary. It has already been argued that the contingent existence of God is impossible in any case; and now it appears that if the necessary existence of God is not a fact (which it is not, if He does not exist), it too is impossible. Therefore, if God does not exist, His existence is altogether impossible. The existence of God is either necessary (if He exists) or impossible (if He does not exist).

But the existence of God is not impossible (Premise II). This we are entitled to assume because the existence of God would be impossible only if the concept of God were self-contradictory, and any concept may be presumed consistent until it is proved not to be. Granted that the existence of God is not impossible, it is necessary, since it is either necessary or impossible. But whatever is necessarily the case, is the case. The existence of God is necessary; therefore God exists. Q.E.D.

The modal argument for the existence of God is the argument which Charles Hartshorne[2] and Norman Malcolm[3] have discovered in chapter 3 of Anselm's Proslogion and in his reply to Gaunilo, and which they have defended. In the lively discussion stirred up by Hartshorne and Malcolm, philosophers have commonly referred to the argument as an "ontological argument" or as "the second (form of the) ontological argument." I shall depart from this terminological tradition, however. I will not refer to the argument as an "ontological argument" at all, but only as "the modal argument"[4] for the existence of God. I do this partly because it is convenient to have a distinctive name for the argument which we will be discussing at great length. But also I am concerned to remove any unnecessary temptation to confuse features of the modal argument with those of other arguments that have been called "ontological," such as the argument found in the second chapter of the Proslogion. There are several a priori arguments which have been believed to prove that it is a necessary truth that God exists. They are quite different from each other; and I think it is wise to have a distinctive name for each of them, rather than to lump some or all of them together as "ontological."

Although I shall have many occasions to discuss passages from Anselm, Hartshorne, Malcolm, and other philosophers, this is in no sense a historical or exegetical study. I will try to be accurate and fair in dealing with what others have written, but the limits of my task will not permit the discussion to go deeply into difficult points of interpretation. Normally I will attempt to put each viewpoint and argument in its strongest form, even if we cannot be sure that this is its original form--indeed, even if we know that that is not its original form. Problems of interpretation will be pointed out along the way, however.

In Chapter Two, two versions of the modal argument for the existence of God will be formalized, one of which requires a slightly stronger system of modal logic than the other. It will be shown that the conclusion "God exists" can indeed be proved from Premises I and II, in some, but not all, systems of modal propositional calculus. There are therefore three questions to be answered in assessing the soundness of the modal argument for the existence of God: "Is Premise I true?" "Is Premise II true?" and "Among the systems of modal logic in which the existence of God can be proved from Premises I and II, is there at least one system which is valid? (That is, can we rely on one such system to derive only true conclusions from true premises?)"

Accordingly, this dissertation is divided in three parts. In Part One, the two different formalizations of the modal argument for the existence of God will be developed, and it will be shown that the argument is formally correct in some systems of modal logic and not in others. We will see that the validity of systems of modal logic depends on the meaning or interpretation assigned to the modal terms or operators, and that interpretations likely to be intended in the modal argument for the existence of God validate systems in which the argument is formally correct. Part Two will be devoted to considerations bearing on the truth or falsity of Premise I. I will argue that it is not clear whether Premise I expresses an essential feature of the ordinary Jewish and Christian concept of God, but that a philosophical concept of God can be developed (at least in a suitably broad sense of "concept") for which the premise is true. In Part Three we will assume an interpretation of necessity under which the argument from Premises I and II to the existence of God is formally valid, and a concept of God for which Premise I is true, and we will consider arguments for and against the truth of Premise II. I will try to show that the principal contemporary arguments on both sides of the question are inconclusive. I believe it has not been shown that it cannot be a necessary truth that God exists; but neither has a compelling argument been given for thinking that God's logically necessary existence, rather than His nonexistence, is possible. This seems to me to be the weakness by virtue of which the modal argument for the existence of God fails to accomplish what has been claimed for it.

PART ONE: THE LOGIC OF THE ARGUMENT

CHAPTER TWO: SYNTACTICAL CONSIDERATIONS

Part One of this dissertation is divided in two chapters. In the present chapter two formalizations of the modal argument for the existence of God will be stated and shown to be correct proofs in certain systems of modal logic. This formal correctness will be proved by syntactical considerations alone; that is, we will need nothing but the axioms and transformation rules of the systems in question. In Chapter Three semantical considerations will come into play, in that we will consider different meanings or interpretations which might be given to the modal operators in our formalizations. We will see that different interpretations of the modal operators justify different systems of modal logic; and we will be able to construct a countermodel which shows that in certain systems of modal logic the existence of God cannot be proved from Premises I and II.

Even in Chapter Three the terms whose meanings will be under study are the modal terms of the argument. The proposition "God exists" (which will be represented by a constant, "g") could be replaced by "Platonic Forms exist" or "Two is the square root of four" (or "Two is the square root of five") without making any difference to a great deal of what is said in Chapters Two and Three. We are concerned in Part One with the formal properties of the argument. And the very same form of argument could be used to give a modal argument for the existence of Platonic Forms if one thinks that the substitution of "Platonic Forms exist" for "God exists" in Premises I and II yields true propositions.

The present chapter is divided in two sections. In the first section two different systems of modal propositional calculus will be defined, and two different formalizations of the modal argument for the existence of God will be stated, one in each system. It will be seen that these are formally correct proofs in the systems defined. In the second section I will explain the formal relations of the systems used in the proofs to each other and to some of the more widely used systems of modal propositional calculus; and I will show that the systems used in the proof are contained (and the proofs therefore hold good) in certain of the more widely used systems.

I

(A) The following symbols will be used throughout this dissertation.

"g" for "God exists." ("g" is a constant, not a variable.)

"p," "q," "r" are variables, representing propositions.

"Np" for "It is necessary that p."

"$\sim$p" is the negation of "p."

"p & q" is the conjunction of "p" and "q".

"p V q" (read "p or q") =df. "$\sim$($\sim$p & $\sim$q)"

"p $\supset$ q" (read "if p, then q") =df. "$\sim$p V q"

"Mp" (read "It is possible that p") =df. "$\sim$N$\sim$p"

Premise I ("It is a necessary truth that if God exists it is a necessary truth that God exists") and Premise II ("It is not a necessary truth that God does not exist") are symbolized as follows.

(I) N(g $\supset$ Ng)

(II) $\sim$N$\sim$g

It is essential that Premise I reads "N(g $\supset$ Ng)" rather than just "g $\supset$ Ng."

"$g \supset Ng$," without the necessity operator "N," says only that God *does not* exist otherwise than necessarily, not that He *could not* exist otherwise than necessarily. Only if we start with the claim that God *could not* exist otherwise than necessarily, will the argument show that if He does not exist His existence is impossible.

I have indicated that there are two forms of the argument, one of which requires a stronger system of modal logic than the other. We will first define the stronger system (which we shall call "System A"), and state the argument which requires it (which we shall call "Modal Argument A"). The basis of System A (i.e., the complete set of axioms and transformation rules needed to generate the system) includes a complete basis for the classical non-modal propositional calculus, in which the rules of material detachment (modus ponens), modus tollens, hypothetical syllogism, transposition, double negation, and substitution for variables, among others, are either primitive or derived rules. The definition of System A is completed by adding to the classical non-modal propositional calculus the following modal axioms.

Axiom 1: $N(p \supset q) \supset N(\sim q \supset \sim p)$

Axiom 2: $Np \supset p$

Axiom 3: $N(p \supset q) \supset (Np \supset Nq)$

Axiom 4: $\sim Np \supset N \sim Np$

Any objections to the use of System A are likely to center on Axiom 4. One of the points which has aroused some controversy in the field of modal logic is whether Axiom 4 ought to be contained, as an axiom or as a provable theorem, in systems of modal logic. One well known system of modal propositional calculus contains it; many others do not. The other axioms of System A are non-controversial and would be contained in any system of modal logic likely to be recommended for use in the context with which we are concerned.[5]

The argument we want to formalize is a proof from premises. System A is therefore to be understood as permitting the assertion, as a premise, of a well formed formula which is not an axiom or theorem of the system. And when we discuss other systems of modal logic we shall assume that they too are defined or modified so as to permit the assertion of a non-theorem as a premise.

We can now state Modal Argument A.

(1)	$N(g \supset Ng)$	Premise I.
(2)	$N(g \supset Ng) \supset N(\sim Ng \supset \sim g)$	Substitution instance of Axiom 1.
(3)	$N(\sim Ng \supset \sim g)$	(2), (1), Modus ponens.
(4)	$N(\sim Ng \supset \sim g) \supset (N\sim Ng \supset N\sim g)$	Substitution instance of Axiom 3.
(5)	$N\sim Ng \supset N\sim g$	(4), (3), modus ponens.
(6)	$\sim Ng \supset N\sim Ng$	Substitution instance of Axiom 4.
(7)	$\sim Ng \supset N\sim g$	(6), (5), hypothetical syllogism.
(8)	$\sim N\sim g$	Premise II.
(9)	Ng	(7), (8), modus tollens, double negation.
(10)	$Ng \supset g$	Substitution instance of Axiom 2.
(11)	g	(10), (9) modus ponens.

Two things may be observed right away about Modal Argument A. First, it is a formally correct proof, in System A, of the conclusion "g" ("God exists") from the premises "$N(g \supset Ng)$" and "$\sim N\sim g$." Second, the proof falls naturally in two parts. The first seven steps do not depend on Premise II at all. They constitute a formally valid proof, from Premise I alone, of the preliminary conclusion "$\sim Ng \supset N{\sim}g$" ("If it is not a necessary truth that God exists, then it is a necessary truth that God does not exist"). This conclusion is equivalent by simple non-modal propositional logic, to "$Ng \vee N{\sim}g$" ("Either it is a necessary truth that God exists or it is a necessary truth that God does not exist"). Thus if one accepts Premise I, and uses System A, then even if one doubts the truth of Premise II one can arrive at the conclusion that either it is a necessary truth that God exists or it is a necessary truth that He does not exist. If one also accepts Premise II, one can go on to conclude that it is God's existence rather than His nonexistence which is necessary.

It was Charles Hartshorne who first showed that the apparatus of modern symbolic logic can be used to formulate a very precise and aesthetically satisfying statement of the modal argument for the existence of God.[6] I have changed some of the steps of the argument, so as to exhibit more clearly its correctness in a given system; but I believe that Modal Argument A is substantially identical with Hartshorne's formalized proof. Steps (1), (6), and (8) are the same as Hartshorne's steps 1, 3, and 7, respectively; the only difference is that he uses "$N(\sim Np \supset N{\sim}Np)$" instead of "$\sim Np \supset N{\sim}Np$," thus asserting more than the argument requires. He calls these three steps the "assumptions" of his argument; and they also represent the crucial assumptions of Modal Argument A. Steps (1) and (8) of Modal Argument A are Premises I and II; and step (6) is justified as a substitution instance of Axiom 4, which is the one axiom on account of which the justifiability of using Modal System A is apt to be questioned. Hartshorne's argument also agrees with Modal Argument A in first deriving from Premise I alone the conclusion that either God's existence or His nonexistence is necessary, and only then advancing the premise that God's nonexistence is not necessary.

(B) The modal argument for the existence of God is found in Anselm in a version which at least suggests a formulation which is slightly more economical in its modal assumptions than Modal Argument A. Anselm's clearest formulation of it may be divided in three steps, as follows:

> [i] For no one who denies or doubts that there exists something than which a greater cannot be conceived denies or doubts that if it did exist its nonexistence, either in actuality or in the understanding, would be impossible. For otherwise it would not be that than which a greater cannot be conceived.
>
> [ii] But as to whatever can be conceived but does not exist--if it did exist, its nonexistence, either in actuality or in the understanding, would be possible.
>
> [iii] Therefore if "that than which a greater cannot be conceived" can even be conceived, it cannot be nonexistent.[7]

Step (i) says, not merely that if God exists His nonexistence is impossible ($g \supset \sim M{\sim}g$), but that even on the supposition that God does not exist, it follows from the concept of God (as a being than which a greater cannot be conceived) that if He did exist His nonexistence would be impossible. I think we may fairly take Anselm as claiming that it is a necessary truth that if God exists His nonexistence is impossible. This proposition may be symbolized as "$N(g \supset \sim M{\sim}g)$", which is equivalent, by the definition of "M," to "$N(g \supset Ng)$"--that is, to Premise I of the modal argument for the existence of God.

Step (ii) says that if something is nonexistent, then if it did exist, its nonexistence would be possible. This is the same as to say that if something does not exist, then if it did exist its existence would not be necessary. Anselm here expresses a modal axiom on which his argument depends. But what is that axiom? How shall we formulate it? What Anselm says could easily be derived from Axioms 2 and 4 of System A, as follows.

(1) $N(x \text{ exists}) \supset x \text{ exists}$	Substitution instance of Axiom 2.
(2) $\sim(x \text{ exists}) \supset \sim N(x \text{ exists})$	(1), transposition.
(3) $\sim N(x \text{ exists}) \supset N\sim N(x \text{ exists})$	Substitution instance of Axiom 4.
(4) $\sim(x \text{ exists}) \supset N\sim N(x \text{ exists})$	(2), (3), hypothetical syllogism.

Line (4) of this derivation says that if x does not exist then it is necessary that its existence is not necessary--and this is proved for any arbitrary x. And if it is necessary that x's existence is not necessary, surely that means, in part, that if x did exist its nonexistence would still be possible. Thus we can conclude that, as Anselm says, if x does not exist, then if x did exist its nonexistence would still be possible.

Anselm need not have had such a complicated derivation in mind, however. For line (4) of the derivation is a substitution instance of the following formula, which has been used as an axiom in some systems of modal logic.

$$\sim p \supset N\sim Np$$

This formula is a form of what is often called "Brouwer's Axiom." We obtain several advantages if we treat this formula as the primitive axiom on which Anselm is relying. We eliminate the necessity of deriving a substitution instance of the formula from two other axioms. We also get an axiom which is closer to Anselm's words in step (ii) of his argument. After all, he asserts something (as line (4) of the derivation does) about things which do not exist; he does not assert anything about things whose nonexistence is merely possible (as line (3) does). And finally, we get an axiom which is weaker than Axiom 4 of Modal Argument A--an axiom which claims less and therefore involves us in less exposure to error. For whereas Axiom 4 ("$\sim Np \supset N\sim Np$") says that if something is not necessary (even though, perhaps, it is the case), it is necessary that it is not necessary, Brouwer's Axiom ("$\sim p \supset N\sim Np$") asserts only that if something is not the case it is necessary that it is not necessary. The second formulation of the modal argument for the existence of God is based on a system of modal logic whose chief difference from System A is that its basis includes Brouwer's Axiom instead of Axiom 4.

Step (iii) is not quite the desired conclusion ("g"). Depending on the interpretation of "it cannot be nonexistent," step (iii) could be read either as "$N(Mg \supset g)$" or as "$Mg \supset Ng$." Actually, neither of these formulas is needed as a step in our second formulation of the modal argument for God's existence; all that is needed is the weaker formula "$Mg \supset g$." One of these formulas, "$Mg \supset Ng$," is equivalent by transposition to line (7) of Modal Argument A, "$\sim Ng \supset N\sim g$." The latter formula is the conclusion of the first part of Modal Argument A, in which Premise I is the only premise used. The passage I have quoted from Anselm, therefore, represents only the first part of a modal argument for the existence of God. In order to get from step (iii), in any of the three forms mentioned, to the conclusion that God exists, we need the premise that the existence of God is possible (not impossible). That is, we need Premise II ("$\sim N\sim g$"). Anselm, of course, asserts this additional premise, calling on the "faith and conscience" of his critic Gaunilo to attest that God can indeed be conceived to exist as that than which nothing greater can be conceived.[8]

Let us adopt the names "Modal Argument B" and "System B" for the second formulation of the modal argument for the existence of God and the system of modal propositional calculus which it requires. The basis which defines System B includes a complete basis for the classical non-modal propositional calculus, as in System A, and the following modal axioms.

Axiom 1: $N(p \supset q) \supset N(\sim q \supset \sim p)$

Axiom 3: $N(p \supset q) \supset (Np \supset Nq)$

Axiom 5: $\sim p \supset N\sim Np$

Axiom 5 is Brouwer's Axiom, and replaces Axiom 4 of System A. Axiom 2 of System A is quite non-controversial; but I have omitted it from the basis of System B because it is not needed for Modal Argument B and I want to exhibit the weakest system of modal logic in which the existence of God can be proved from Premises I and II.

Modal Argument B is formulated as follows.

(1)	$N(g \supset Ng)$	Premise I.
(2)	$N(g \supset Ng) \supset N(\sim Ng \supset \sim g)$	Substitution instance of Axiom 1.
(3)	$N(\sim Ng \supset \sim g)$	(2), (1), modus ponens.
(4)	$N(\sim Ng \supset \sim g) \supset (N\sim Ng \supset N\sim g)$	Substitution instance of Axiom 3.
(5)	$N\sim Ng \supset N\sim g$	(4), (3), modus ponens.
(6)	$\sim g \supset N\sim Ng$	Substitution instance of Axiom 5.
(7)	$\sim g \supset N\sim g$	(6), (5), hypothetical syllogism.
(8)	$\sim N\sim g$	Premise II.
(9)	$\sim\sim g$	(7), (8), modus tollens.
(10)	g	(9), double negation.

This is a formally correct proof, in System B, of the conclusion "g" ("God exists") from the premises "$N(g \supset Ng)$" and "$\sim N\sim g$."

I am not in a position to assert that Modal Argument B is the form of modal argument for the existence of God which Anselm intended to have set forth; but I have argued that Axiom 5 is closer to Anselm's words than Axiom 4 is. Modal Argument B may have some historical interest for this reason, and some formal interest because it is more economical in its assumptions than Modal Argument A. Nonetheless, I will treat Modal Argument A as the principal form of the modal argument for the existence of God. Certain features of the argument emerge more clearly in Modal Argument A, and I doubt that there is any plausible objection to Modal Argument A which is not equally an objection to Modal Argument B.

II

We have seen that the conclusion "God exists" does follow from Premises I and II in Systems A and B. Seeing this, however, is only the first and easiest step in assessing the soundness of the modal argument for the existence of God. The soundness of the argument depends, as I observed in Chapter One, on the truth of Premises I and II and on the validity of System A or System B. We will postpone discussion of the truth or falsity of Premises I and II until Parts Two and Three of this dissertation; our next task is to deal with the question of the validity of Systems A and B.

It may be thought strange that I speak of the "validity" of a system of logic, and of the "formal correctness" rather than the "formal validity" of proofs in a system. The reason is that "valid" is a semantical rather than a syntactical term. A formally valid proof is not just a proof which is correct according to the rules of a given system; it is a proof whose logical form is such that every argument of that form, if it has true premises, has a true conclusion. To say that Modal Argument A or B is formally valid is to say something about the argument form:

$$N(p \supset Np)$$

$$\underline{\sim N \sim p \qquad}$$

$$\therefore p$$

It is to say that for every value of "p," if "$N(p \supset Np)$" and "$\sim N \sim p$" are true, then "p" is true. Now the truth of "$N(p \supset Np)$" and "$\sim N \sim p$" depends, in whole or in part, on the meanings of the terms involved. It depends not only on the value of "p," but also on the meanings or interpretations assigned to the logical operators. We shall assume that there is no question or problem about the meanings of the non-modal logical operators, but there certainly are questions which we must discuss about the meaning of the necessity operator "N." The validity of Modal Arguments A and B depends on the interpretation of "N," or the meaning of "it is necessary that..."—and in that respect it depends on semantical considerations, which will be discussed in Chapter Three.

We have shown, however, that "God exists" does follow from Premises I and II in Systems A and B. Therefore we will know that Modal Argument A or B is formally valid if we can show that System A or B is "valid" under the intended interpretation, in the following sense. A system of logic is valid under a given interpretation of its logical operators if and only if, under that interpretation, every substitution instance of the system's axioms is true and all the transformation rules of the system preserve truth. We will be concerned in Chapter Three with the validity of certain systems of modal logic under certain interpretations of the modal operators.

Before taking up these semantical considerations, however, it will be profitable to take note of some relationships between Systems A and B and certain other systems of modal logic; many of these relationships can be established by purely syntactical means--that is, by reference solely to the axioms and transformation rules of the systems, without regard to the interpretation of the logical operators. We shall examine relationships that Systems A and B have with each other and with four of the better known systems of modal propositional calculus.

All of the modal systems with which we will be dealing are formed by adding some axioms, and in some cases a transformation rule, to a complete basis for the classical non-modal propositional calculus. The following rule and six axioms contain all that is needed, in addition to the non-modal propositional calculus, for the development of these systems.

Rule 1: If "*a*" is an axiom or theorem of the system, then "N*a*" may be asserted as proved.

Axiom 1: $N(p \supset q) \supset N(\sim q \supset \sim p)$

Axiom 2: $Np \supset p$

Axiom 3: $N(p \supset q) \supset (Np \supset Nq)$

Axiom 4: $\sim Np \supset N{\sim}Np$

Axiom 5: $\sim p \supset N{\sim}Np$

Axiom 6: $Np \supset NNp$

System A is defined by Axioms 1, 2, 3, and 4 (and a complete basis for the classical non-modal propositional calculus, as is to be understood in my description of all these systems). System B is defined by Axioms 1, 3, and 5. Axiom 5, though not part of the basis of System A, is provable in System A. A substitution instance of Axiom 5 was derived from substitution instances of Axioms 2 and 4 earlier in the chapter, when we were discussing Anselm; the proof can easily be generalized to constitute a derivation of Axiom 5. (The proof is given in a note.[9]) Since the other axioms of System B (Axioms 1 and 3) are part of the basis of System A, it follows that System B is contained in System A. (To say that System B is contained in System A is to say that all the formulas provable in System B are also provable in System A.) It can be proved, on the other hand, that Axiom 4 is not provable in System B, and System A is therefore not contained in System B; this can be done by means of a matrix (which I give in a note[10]) which shows that a consistent interpretation can be found under which System B is valid but Axiom 4 is not. System A is thus stronger than System B.

Of the four better known systems that we shall consider, the weakest is one which is commonly known as "M." (It is also sometimes called "T.") M is defined by Rule 1 and Axioms 2 and 3.[11] M is not contained in System A, and therefore not in System B, because Rule 1 is not derivable in System A. (This can be proved by means of a matrix similar to the one mentioned above.[12]) Axiom 1 can be proved in M, as follows.

(1) $(p \supset q) \supset (\sim q \supset \sim p)$ — Non-modal tautology.

(2) $N[(p \supset q) \supset (\sim q \supset \sim p)]$ — (1), Rule 1.

(3) $N[(p \supset q) \supset (\sim q \supset \sim p)] \supset$
$[N(p \supset q) \supset N(\sim q \supset \sim p)]$ — Substitution instance of Axiom 3.

(4) $N(p \supset q) \supset N(\sim q \supset \sim p)$ — (3), (2), modus ponens.

But it is known that Axioms 4 and 5 cannot be proved in M;[13] M therefore contains neither System A nor System B.

If to the basis of M we add Axiom 6, "$Np \supset NNp$," we get a system known as "S4." Axiom 6 could have been stated as "$MMp \supset Mp$" instead of

"$Np \supset NNp$"; if either is assumed, the other can be proved, given Rule 1 and Axioms 2 and 3. Axiom 2 already gives us the converses of those theses, "$NNp \supset Np$" and "$Mp \supset MMp$"; so "$Np \equiv NNp$" and "$Mp \equiv MMp$" are theses of S4. Axiom 6 is known as "the weak reduction principle," because it can be used to reduce any uninterrupted string of "N"s to a single "N" and any uninterrupted string of "M"s to a single "M." Strings interrupted by negation signs or containing both "N"s and "M"s cannot always be reduced in S4, however. Obviously S4 contains M. S4 does not contain System A or System B, however, because Axioms 4 and 5 are known not to be provable in S4. And S4 is not contained in System A or B; no system that contains M is contained in System A or B, because Rule 1 is not derivable in System A or B.

If instead of Axiom 6 we add Axiom 5, "$\sim p \supset N{\sim}Np$," to the basis of M, we get what has been called the "Brouwersche system."[14] Axiom 5 is a form of "Brouwer's Axiom," which is perhaps more often stated in the equivalent form, "$p \supset NMp$." The Brouwersche system has received comparatively little attention among modal logicians. The basis of the Brouwersche system is the same as that of System B, except that Axiom 2 is added and Axiom 1 is replaced by Rule 1. The Brouwersche system contains M but not S4, and is contained by neither of them. Since the Brouwersche system contains M, it is not contained in System A or System B, and Axiom 1 is provable in the Brouwersche system as it is in M. And because Axiom 1 is provable in the Brouwersche system, and Axioms 3 and 5 are part of its basis, it does contain System B. But Axiom 4 is known not to be provable in the Brouwersche system, which therefore does not contain System A.

The strongest of the systems we will consider is known as "S5." The basis of S5 includes Rule 1 and Axioms 2, 3, and 4. Instead of Axiom 4

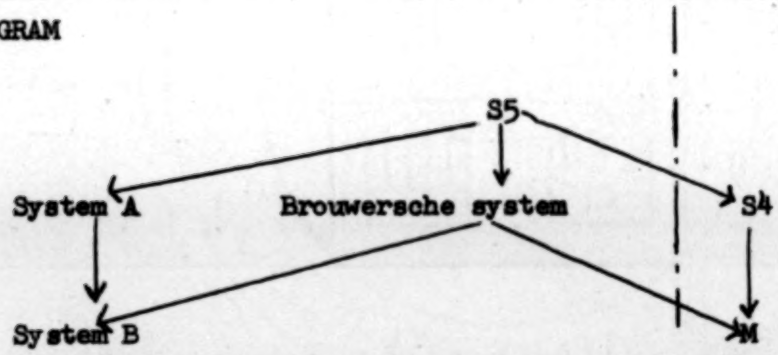
("$\sim Np \supset N{\sim}Np$") we could use "$Mp \supset NMp$" or "$MNp \supset Np$" or "$M{\sim}Mp \supset {\sim}Mp$"; they are all equivalent assumptions, given the rest of the basis of S5. And by Axiom 2 we already have their converses, "$N{\sim}Np \supset {\sim}Np$," "$NMp \supset Mp$," "$Np \supset MNp$," and "$\sim Mp \supset M{\sim}Mp$." So the equivalences, "$\sim Np \equiv N{\sim}Np$," "$Mp \equiv NMp$," "$Np \equiv MNp$," and "$\sim Mp \equiv M{\sim}Mp$" hold in S5. Axiom 4 is known as "the strong reduction principle" because together with the weak reduction principle, which is provable in S5, it enables us to reduce every string of "N"s, "M"s, and negation signs to "N," "~N," "M," or "~M"—that is, to one "N" or one "M," with or without one negation signed prefixed. As a result, in S5 modal status is always necessary; that is, any formula of the form "Np," "~Np," "Mp," or "~Mp" is equivalent to the same formula with "N" prefixed. S5 contains all the other systems discussed above, and is contained by none of them. Obviously S5 contains M, since the basis of M is entirely included in the basis of S5. It follows that Axiom 1 is provable in S5; and so S5 contains System A (and therefore System B), since the other axioms of System A are already axioms of S5. It has long been known that S5 contains S4 and the Brouwersche system.[15] S5 is not contained in System A or B, because Rule 1 is not derivable in them; and it is known that S5 is not contained in M, S4, or the Brouwersche system.

It may be helpful to have a table showing which of the rule and six axioms are used in the basis of each of the six systems discussed here, and a diagram showing the relations of the six systems to one another. An arrow, in the diagram, indicates that the upper system contains, and is not contained by, the lower system; of course the upper system also contains all systems contained by the lower system.

TABLE

System A	Axioms 1, 2, 3, and 4
System B	Axioms 1, 3, and 5
M	Rule 1, Axioms 2 and 3
S4	Rule 1, Axioms 2, 3, and 6
Brouwersche system	Rule 1, Axioms 2, 3, and 5
S5	Rule 1, Axioms 2, 3, and 4

DIAGRAM



Systems A and B differ from the other four systems in using Axiom 1 instead of the much stronger Rule 1. That is the only difference between System A and S5; and it would be the only difference between System B and the Brouwersche system if Axiom 2 were added to the basis of System B. The difference between the systems to the left of the dotted line and those to the right of it is more important for our present purpose. In all four of the systems to the left of the dotted line the conclusion "God exists" can be proved from Premises I and II. This follows from the fact that it can be proved in System B and that System B is contained in the other three systems. The validity of any one of these four systems, then, together with the truth of Premises I and II, is all that the modal argument for the existence of God requires for its soundness.

But in the systems to the right of the dotted line, "God exists" cannot be proved from Premises I and II. These systems, S4 and M, differ from the other four in having neither Axiom 4 nor Axiom 5 as part of their bases. And as I have pointed out, it is known that Axioms 4 and 5 cannot be proved in S4 or M. It might be wondered whether "God exists" can be proved from Premises I and II in S4 or M, without using Axiom 4 or 5; the answer is that it cannot. For the present I shall ask the reader to accept this answer on faith; at the end of Chapter Three I shall prove it, by formulating an interpretation of the necessity operator under which S4 is valid, and then showing that under this interpretation there is a value of "p" such that "p" is false but "N(p ⊃ Np)" and "~N~p" are true. The modal argument for the existence of God therefore cannot succeed in S4 or M.

These six systems are by no means the only systems of modal propositional calculus; a number of others are known, but need not concern us here. We have seen that there are at least four systems which contain all the modal logic assumed by the modal argument for the existence of God. Chapter Three will be devoted chiefly to considering whether one of these systems is valid under certain interpretations of the necessity operator.

CHAPTER THREE: SEMANTICAL CONSIDERATIONS

We observed in Chapter Two that the validity of systems of modal logic depends on the meaning or interpretation assigned to the modal operators. The expressions "it is necessary that..." and "it is possible that..." are used in a number of different senses; and there are accordingly several systems of modal logic which may be useful for some purposes. In this chapter we shall consider three types of interpretation which philosophers have suggested for modal terms and operators. In the first section of the chapter we shall look at some interpretations in terms of time. The second section will be devoted to an interpretation of necessity in terms of truth-by-virtue-of-meanings. And in the third section we will take up some interpretations in terms of possible worlds. Then in the fourth section of the chapter one of the interpretations in terms of possible worlds will be used to show that "God exists" cannot be proved from Premises I and II in S4. In a brief final section I will try to draw together some conclusions from our studies in Chapters Two and Three.

I

It is well known that there is a close formal relationship between systems of modal logic and systems of tense logic, and that some systems of modal logic can be interpreted in terms of time. It is also well known that some ancient Greek logicians did explain the meaning of "possible" and "necessary" in temporal terms. We will find it profitable to study interpretations in terms of time for three reasons: first because such interpretations offer cases in which it is particularly easy to see that different interpretations validate different systems of modal logic;

second, because several contemporary philosophers have suggested that God's existence is conceived to be necessary in a sense of "necessary" that is wholly or partly temporal;[16] and third, because this study will shed light on some aspects of the modal argument for the existence of God.

In interpreting the modal operators in terms of time, we treat the variables "p," "q," etc. as sentential variables which may take as their values sentences which contain indexical indications of time and which therefore can be true at one time and false at another, such as "It is raining now," "The present President of the United States is a Texan," "I have finished that job." The variables may take sentences of other kinds as values too; but the temporal interpretation of the modal operators would probably not have much point if these temporally indexical sentences were not admitted as values of variables.

We may consider two different ways of interpreting the modal operators in terms of time. Under both interpretations I think it is obvious that Axioms 1, 2 and 3 are valid (i.e., all their substitution instances must be true). The question whether System A or B is valid under these interpretations therefore turns on the question whether Axiom 4 or 5 is valid under them. Under one of the two interpretations it may be argued that Axiom 4 is valid; under the other interpretation both axioms are clearly invalid.

One way of interpreting the modal operators is to take "Np" as meaning "It always was, is, and will be the case that p." "Mp," which is defined as the negation of "N~p," can then be rendered as "It at some time was, is or will be the case that p." Under this interpretation of the modal operators, "$\sim Np \supset N\sim Np$" (Axiom 4) means "If it is not always, or has not always been, or will not always be the case that p, then it always was, is, and will be the case that it is not always, or has not always been, or will not always be the case that p." Most philosophers, I think, would say that that is a valid formula; they would say that whereas "It is raining now" can change its truth value because the time reference of the word "now" changes with the passage of time, there is no way in which a sentence of the form "It is not always, or has not always been, or will not always be the case that p" can change its truth value. Therefore if a sentence of the latter form is true at all, it is always true. Some philosophers would disagree with this position, and I am not sure that they are wrong; but for our present purposes let us assume that "$\sim Np \supset N\sim Np$" (Axiom 4) is valid under the interpretation we have just been considering. And if Axiom 4 is valid under this interpretation, so is System A.

A second way of interpreting the modal operators in terms of time is to take them as referring only to the present and future; one can let "Np" mean "It is and always will be the case that p." "Mp" or "$\sim N\sim p$" then means "It is or at some time will be the case that p." This interpretation yields what is commonly known as "Diodorean modality" after the ancient Megarian logician Diodorus Cronus, who advocated a similar interpretation of "necessary" and "possible."[17] It is clear that under the Diodorean interpretation Axiom 4, "$\sim Np \supset N\sim Np$" is invalid. For "$\sim Np$" means "It is not the case that it is and always will be the case that p"; and "$N\sim Np$" means "It is not, and always will not be, the case that it is and always will be the case that p." Suppose "p" represents "Robert Merrihew Adams has died"; that is not the case now, and therefore "$\sim Np$" is true. But there will be a time after which it will be the case, and will always thereafter be the case, that I have died. Therefore it is false that it always will not be the case that it is and always will be the case that p;

"$N\sim Np$" is false. Therefore "$\sim Np \supset N\sim Np$" is false for this value of "p," under this interpretation; and Axiom 4 is therefore invalid under this interpretation. Axiom 5 is also invalid under the Diodorean interpretation. If "p" represents "Robert Merrihew Adams has died," "$\sim p$" is true but "$N\sim Np$" is false, under the Diodorean interpretation; and that makes "$\sim p \supset N\sim Np$" false for this value of p. Therefore neither System A nor System B is valid under the Diodorean interpretation.[18]

Since neither Axiom 4 nor Axiom 5 is valid under the Diodorean interpretation, it is not a very promising interpretation for the modal argument for the existence of God. But the other temporal interpretation, which may be taken as validating Axiom 4, might seem attractive for use in Modal Argument A or B. Suppose one believed, as John Hick does,[19] for instance, that "$N(g \supset Ng)$" (Premise I) is false if "N" is interpreted in terms of logical necessity, but that God is conceived as existing in some sense necessarily. Perhaps one could see one's way clear to affirming the truth of "$N(g \supset Ng)$" if "Ng" were construed as meaning "It always was, is, and will be the case that God exists." (This interpretation is closely related to the sense in which Hick does think that God's existence is conceived to be necessary; but it is not quite the same.) And one might suppose that Modal Argument A or B could be successful under this interpretation, since it validates the modal systems involved. But in fact the modal argument for the existence of God breaks down under this interpretation, for the following reasons.

"$N(g \supset Ng)$" is only the first of two premises of the modal argument for God's existence; and the other ("$\sim N\sim g$") is not plausible as a premise if "N" is interpreted in terms of truth-at-all-times. For if "$\sim N\sim g$" means "It is not always the case that God does not exist," that is no more obviously true that the simple "God exists"; so there is no point in using the former as a premise to prove the latter. The strategy of the argument depends on the assumption that "God's existence is not impossible" is more obviously true, or at least has a higher degree of plausibility, than "God exists." In fact, proponents of the argument have regularly taken "$\sim N \sim g$" to mean that the existence of God is not inconceivable or not strictly or logically impossible; they have not taken it to mean that God sometimes exists. Therefore "N" must not be interpreted in terms of time in Premise II of the modal argument for the existence of God.

But if "N" is interpreted in terms of time in Premise I, but interpreted differently in Premise II, then Modal Arguments A and B will be vitiated by a fallacy of equivocation; for a key term will be used in two different senses in their two premises. This would destroy their validity. Therefore "N" must not be interpreted in terms of time in either premise.

Two points in this reasoning, which is substantially borrowed from Hick,[20] are of some importance for understanding the modal argument for the existence of God. (1) The fact that "necessary" is used in different senses, and that different interpretations of the modal operator "N" are possible, gives rise to a real danger of a fallacy of equivocation in the modal argument for the existence of God. If one is defending the argument, it is not enough to hold, or to show, that if God exists at all His existence must be in *some* sense necessary, and that His existence is in *some* sense possible (His nonexistence in *some* sense not necessary). One must be sure that the modal operators are used consistently in one sense only throughout the argument, and especially in both premises.

(2) The modal argument for the existence of God will not succeed if the modal operators are interpreted in terms of time, because under

such interpretations the premise "~N~g" is no more evidently true than the conclusion of the argument. The strategy of the argument requires that the modal operators be understood in such a sense that even a man who is not otherwise convinced that he has reason to believe that God exists at any time, might still be inclined to say that God's existence is at least "possible."

II

Both Malcolm and Hartshorne intend the modal argument to be understood in terms of *logical* necessity, and regard logical necessity as depending on the meanings of words. Malcolm is "inclined to hold the 'modern' view that logically necessary truth 'merely reflects our use of words,'" and he says that Anselm speaks of God as "a being whose nonexistence is logically impossible."[21] And Hartshorne writes,

> Something should be said about the meaning of "necessity," symbolized by '*N*'. As every logician knows, there are many interpretations of this symbol. In general it means analytic or L-true, true by necessity of the meanings of the terms employed. This is the sense intended in the present essay.[22]

In view of these statements by the two principal recent proponents of the modal argument for the existence of God, we surely must consider an interpretation of the necessity operator in terms of truth-by-virtue-of-meaning. We must see whether such an interpretation validates one of the systems of modal logic in which "God exists" can be proved from Premises I and II.

The meaning of the necessity operator "N" can be specified by the following semantical rule. *"Np" is true if and only if "p" is true solely by virtue of the meaning rules (including conventions of use and reference, etc.) according to which linguistic expressions are used.* "Mp" ("It is possible that p"), of course, is defined as equivalent to "$\sim N \sim p$." Under this interpretation a sentence is necessarily true just in case it is true because of meaning-rules and needs nothing else to make it true. A sentence is possibly true just in case it is either not false, or, if false, requires something besides meaning-rules to make it false.

It can be argued very plausibly that System A is valid under this interpretation. The validity of the classical non-modal propositional calculus, under the usual interpretation of its non-modal logical operators, may be taken for granted here. What must be shown, therefore, is that Axioms 1, 2, 3, and 4 are valid under the present interpretation of the necessity operator.

Axiom 1: $N(p \supset q) \supset N(\sim q \supset \sim p)$

Suppose, for some given values of "p" and "q," "$N(p \supset q)$" is true. It can be true only if "$p \supset q$" is true solely by virtue of meaning-rules. Now by virtue of the meaning assigned to the operator "$\supset$," "$p \supset q$" is true if and only if it is not the case that "p" is true and "q" is false. Therefore if "$p \supset q$" is true by virtue of meaning-rules, meaning-rules must determine that it is not the case that "p" is true and "q" is false. But if meaning-rules determine that it is not the case that "p" is true and "q" is false, then those rules, together with the rules governing the use of the logical operators "$\sim$" and "$\supset$," determine that "$\sim q \supset \sim p$" is true--so "$\sim q \supset \sim p$" is true by virtue of meaning-rules. And if "$\sim q \supset \sim p$" is true by virtue of meaning-rules, then "$N(\sim q \supset \sim p)$" is true. Thus it is proved that if "$N(p \supset q)$" is true for any given values of "p" and "q," "$N(\sim q \supset \sim p)$" is also true for those values of "p" and "q." It follows that Axiom 1 is valid under the present interpretation.

Axiom 2: $Np \supset p$

Axiom 2 is obviously valid under the present interpretation; for "Np" is true if and only if "p" is true solely by virtue of meaning-rules. It follows that if "Np" is true then "p" is true; and therefore "$Np \supset p$" is true for all values of "p."

Axiom 3: $N(p \supset q) \supset (Np \supset Nq)$

Axiom 3 is valid unless there are some values of "p" and "q" for which "$N(p \supset q)$" and "Np" are true but "Nq" is false. Under the present interpretation, those would have to be values of "p" and "q" for which "$p \supset q$" and "p" are, and "q" is not, true solely by virtue of meaning-rules. But there cannot be any such values of "p" and "q." For consider the following simple argument form (it is modus ponens).

$$\begin{array}{l} p \supset q \\ \underline{p \quad\quad} \\ \therefore q \end{array}$$

We are asked to suppose that the two premises ("$p \supset q$" and "p") are true solely by virtue of meaning-rules. The conclusion ("q") follows from them solely by virtue of the meaning-rules governing the operator "$\supset$." Therefore "q" is true solely by virtue of meaning-rules--namely, by virtue of the meaning-rules governing the use of the operator "$\supset$," and those by virtue of which "$p \supset q$" and "p" are true. So if "$p \supset q$" and "p" are true solely by virtue of meaning-rules, "q" is too. And Axiom 3 is valid.

Axiom 4: $\sim Np \supset N \sim Np$

Axiom 4 also appears to be valid under the present interpretation. Suppose that for some value of "p," "$\sim Np$" is true; by virtue of what is it true? It is true by virtue of the meaning-rules governing the use of "$\sim N$," and the fact that meaning-rules do not suffice to make "p" true.

But if it is the case that meaning-rules do not suffice to make "p" true, surely it is solely by virtue of the meaning-rules themselves that that is the case. Therefore "$\sim Np$" is true solely by virtue of meaning-rules. And therefore, according to the rule which gives the meaning of "N," "$N\sim Np$" is true too. In short, if we suppose that "$\sim Np$" is true, for any value of "p," it follows that "$N\sim Np$" is true for that value of "p." That is, "$\sim Np \supset N\sim Np$" is valid under the present interpretation of "N."[23]

Two objections might be raised against the claim that the interpretation considered here validates Axiom 4. (a) It may be suggested that "$\sim Np \supset N\sim Np$" might be false for some value of "p" because there might be some value of "p" such that "$\sim Np$" is true but we cannot know it to be true.[24] This objection would be pertinent if we were taking "Np" to mean "It is knowable (or provable) that p, solely by virtue of meaning-rules." For there is much plausibility to the suggestion that it may be neither provable nor provably unprovable that a certain proposition is true, solely by virtue of meaning-rules.[25] But under the interpretation we are considering, "Np" may be true even if it is not knowable or provable that p; all that is required, for "Np" to be true, is that "p" be true, and true solely by virtue of meaning-rules. Therefore the objection fails to show a way in which "$\sim Np \supset N\sim Np$" could be false, under the present interpretation of the necessity operator.

(b) Doubts may arise about the correctness of the claim that if it is the case that meaning-rules do not suffice to make "p" true, it is solely by virtue of meaning-rules that that is the case. Are there certain rules according to which it follows that meaning-rules do not suffice to make "p" true? Perhaps there are; perhaps there are permissive meaning-rules which make "$\sim p$" logically possible. But must there be such rules if "p" is not true solely by virtue of meaning-rules? Perhaps it is just that there are no meaning-rules which make "p" true. In that case we can say that "~Np" is true solely by virtue of the whole system of meaning-rules being what it is--that is, by virtue of its not including any rules which make "p" true. That makes "~Np" true by virtue of meaning-rules in a rather different way from that in which, say, "All circles are round" is true by virtue of meaning-rules. There are certain meaning-rules which would be violated if "All circles are round" were treated as not true. But it appears that there may be no meaning-rules which would be violated if "~Np" were treated as not true. Thus there seems to be a certain ambiguity in the statement form "'p' is true solely by virtue of meaning-rules according to which linguistic expressions are used." It may mean that "p" is true because some meaning-rule or rules would be violated if "p" were treated as not true. If that is what is meant, it is not clear that "~Np" could not be true without being true by virtue of meaning-rules. On the other hand, if "'p' is true solely by virtue of the meaning-rules which govern the use of linguistic expressions" means that "p" is true solely by virtue of the system of meaning-rules being just what it is, then "~Np" cannot be true otherwise than solely by virtue of meaning-rules. I think it would be fair to assume that "true solely by virtue of meaning-rules" is understood in this latter, broader sense by those who have argued that Axiom 4 is valid under the interpretation of the necessity operator in terms of truth-by-virtue-of-meaning.

If we grant this assumption, Axioms 1, 2, 3, and 4 are all valid under the interpretation we are considering, and therefore System A is valid under it. Anyone who holds this interpretation of the necessity operator, therefore, if he understands "true solely by virtue of meaning-rules" in the broader sense, is entitled to all the modal logic he needs for Modal Argument A.

III

We will also have occasion to deal with interpretations of modal logic in terms of possible worlds. It is commonly said that a necessary truth is a proposition which is true in all possible worlds. The meaning of the necessity operator "N" might be specified by the following semantical rule. "Np" is true if and only if "p" is true about all possible worlds.[26] "Mp" is still defined as "~N~p," and will be true if and only if "p" is true about some possible world.

It can be shown that S5 is valid under this interpretation, if it is assumed, as it usually is, that the actual world is a possible world and that just the same worlds would be possible, no matter what world were actual. On the other hand, if slightly different assumptions are made an interpretation will be generated which can be shown to validate S4 but not S5 or the Brouwersche system. In order to understand this, it is necessary to replace the concept of a "possible world" with a more complex relational concept. We will say that a world $\underline{w}_2$ is "possible in" a world $\underline{w}_1$ just in case $\underline{w}_2$ would be possible if $\underline{w}_1$ were actual. If we say hereafter that a world is simply "possible," we must be taken to mean that it is "possible in" the actual world. It will be convenient to let "$\underline{w}_1R\underline{w}_2$" stand for "World $\underline{w}_2$ is possible in world $\underline{w}_1$." The relation which obtains between $\underline{w}_1$ and $\underline{w}_2$ if and only if $\underline{w}_1R\underline{w}_2$ is sometimes called the relation of "accessibility," and "$\underline{w}_1R\underline{w}_2$" may be read as "$\underline{w}_2$ is accessible from $\underline{w}_1$." We shall also refer to the relation simply as "R." We can now state a revised semantical rule specifying the meaning of "Np."

(S) "Np" is true about a world _w_ if and only if "p" is true about every world which is possible in _w_.

Saul Kripke has proved, in a manner much more formal than I shall attempt here, that if we assume a set K of possible worlds, and an actual world which is an element of K, and if we further assume that the meaning of "Np" is specified by (S), then S5 is valid if the relation R, as defined on K, is reflexive, transitive, and symmetric (i.e., an equivalence relation). He has also proved that if R is reflexive but not transitive or symmetric, M is valid but S4, the Brouwersche system, and S5 are not; and that if R is reflexive and transitive but not symmetric, S4 is valid but S5 and the Brouwersche system are not; and that if R is reflexive and symmetric but not transitive, the Brouwersche system is valid but S4 and S5 are not.[27] We shall concern ourselves here only with interpretations in which S4 or S5 is valid; in what follows I shall at times be giving an informal version of Kripke's arguments.

It may be wondered what content can be given to the notion of the relation of accessibility between worlds. What could there be about a world, by virtue of which another world would be possible in it though impossible in other worlds, or impossible in it though possible in other worlds? I am going to suggest a type of interpretation which does give content to this notion. It is a type of theological interpretation of modality; some philosophers have suggested theological interpretations of modality. But here it should be regarded simply as an expository device, to show that there is at least some interpretation under which it makes sense to ask whether the relation of accessibility between worlds is or is not symmetric. Since it is an interpretation under which "It is necessary that God exists" is clearly true, it would be begging the question to _assume_ this interpretation in the modal argument for the existence of God. Therefore it is important to emphasize that it will not be assumed in our discussion of the modal argument. Indeed it will be neither assumed nor argued for in this dissertation.

In this type of theological interpretation one assumes a set K of possible worlds, one of which is the actual world. In each world which is a member of K, God exists and perfectly conceives a number of other worlds, as well as being perfectly aware of that world. The meaning of "possible in" is then explained as follows.

> (T) A world $\underline{w}_2$ is possible in a world $\underline{w}_1$ if and only if $\underline{w}_2$ is perfectly conceived by God in $\underline{w}_1$.

It is assumed that in no world does God conceive anything self-contradictory, and that the classical non-modal propositional calculus is valid about every member of K.

Now I think it is clear that the relation of accessibility, as defined on K by (T), is reflexive; for every world, $\underline{w}$, $\underline{w}R\underline{w}$. For in every world $\underline{w}$ which is a member of K, God is perfectly aware of $\underline{w}$, and therefore conceives $\underline{w}$ perfectly. The reflexivity of R corresponds to one of our modal axioms--namely, to Axiom 2 ("$Np \supset p$"). "Np" is true about any world $\underline{w}$ if and only if "p" is true about every world which is possible in $\underline{w}$. But since R is reflexive, $\underline{w}$ is a world possible in $\underline{w}$; therefore "Np" is true about $\underline{w}$ only if "p" is true about $\underline{w}$. Thus "$Np \supset p$" is true, for every value of "p" and about every world $\underline{w}$ in K; that is, Axiom 2 is valid about every world which is a member of K, including, of course, the actual world.

It is also clear that the relation of accessibility between worlds, as defined on K by (T), is transitive; for all worlds $\underline{w}_1$, $\underline{w}_2$, and $\underline{w}_3$ in

K, if w_1Rw_2 and w_2Rw_3, then w_1Rw_3. For "w_2Rw_3" means that in w_2 God perfectly conceives w_3; a perfect conception of w_3 is included in w_2. "w_1Rw_2" means that in w_1 God perfectly conceives w_2; it implies, therefore, that in w_1 God perfectly conceives the perfect conception of w_3 which is included in w_2. And if He perfectly conceives a perfect conception of w_3, surely He perfectly conceives w_3—which is just what "w_1Rw_3" says that God does in w_1. (This last inference may be regarded as manifesting part of what I mean by "perfect conception" here.)

The transitivity of R corresponds to Axiom 6 ("Np ⊃ NNp"). This axiom could be false about any world w only if "Np" were true, and "NNp" false, about w. "NNp" is false about w if and only if "Np" is false about some world possible in w; and that condition is satisfied if and only if "p" is false about some world which is possible in some world which is possible in w. But if that condition is satisfied, the world about which "p" is false must be possible in w, since the relation of accessibility is transitive. And if "p" is false in a world which is possible in w, "Np" is false in w. Thus if "NNp" is false in w, so is "Np." Therefore "Np ⊃ NNp" is true, for every value of "p" and about every world w in K; that is, Axiom 6 is valid about every world which is a member of K, including of course the actual world.

There remains the question whether the relation of accessibility is *symmetric*. The type of interpretation we are considering could be developed in two different ways at this point. Although it hardly makes sense to speak of God perfectly conceiving a world in which He would conceive *more* than He actually does (and hence R is transitive), it is not obvious that God could not perfectly conceive a world in which He would conceive *less* than He actually does. That is, it could be supposed that for some w_1 and

w_2, members of K, God perfectly conceives w_2 in w_1, but in w_2 He does not perfectly conceive w_1 (w_1Rw_2 but not w_2Rw_1); in this case the relation of accessibility would not be symmetric. On the other hand, it could also be supposed that for every w_1 and w_2 in K, if God perfectly conceives w_2 in w_1 He also perfectly conceives w_1 in w_2 (if w_1Rw_2 then w_2Rw_1); in this case the relation of accessibility would be symmetric.

The symmetry of R corresponds to Axiom 5 (~p ⊃ N~Np). Suppose "~p" is true about some world *w* in K. It follows that "p" is false about *w*; and it follows from that that "Np" is false, and "~Np" is true, about every world in which *w* is possible. If R is symmetric, *w* is possible in every world which is possible in *w*; so if "~Np" is true about every world in which *w* is possible, it is true about every world which is possible in *w*. It follows that if "~p" is true about *w*, and R is symmetric, "N~Np" is true about *w*. In other words, "~p ⊃ N~Np" is true, for every value of "p" and about every world *w* in K, if R is symmetric; Axiom 5 is valid about every world which is a member of K, if R is symmetric.

But if R is not symmetric, Axiom 5 is not valid about every world in K. For if R is not symmetric then there are worlds w_1 and w_2 in K such that w_1Rw_2 but not w_2Rw_1. (w_2 is possible in w_1, but w_1 is not possible in w_2.) I think it is reasonable to assume that there must be some proposition which is true about w_1 but not true about any other world in K; otherwise w_1 would not be distinct from all the other members of K. Let "p" be the negation of that proposition. "~p" is true about w_1, but "p" is true about every other world in K. Since w_1 is not possible in w_2, "p" is true about every world which is possible in w_2; therefore "Np" is true, and "~Np" is false, about w_2. And since w_2 is possible in w_1, "~Np" is false about a world which is possible in w_1, and "N~Np" is therefore false about w_1. In short, if R is not symmetric there is a world in K about which "$\sim p$" is true and "$N{\sim}Np$" is false, for some value of "p." Therefore the axiom "$\sim p \supset N{\sim}Np$" is not valid about every world in K, if R is not symmetric.

We have seen that the classical non-modal propositional calculus, and modal Axioms 2 and 6, are valid about all worlds in K, under the type of interpretation considered here, and that Axiom 5 is valid about all worlds in K if and only if the relation of accessibility is symmetric. It is well known that if Axiom 5 is added to a complete basis for S4, the result is a system equivalent to S5.[28] There remain, therefore, just two steps to be completed if we are to show that S4 is valid under this type of interpretation, and that S5 is valid under it if and only if the relation of accessibility is symmetric as well as reflexive and transitive. We must show that Axiom 3 is valid about every world in K, and that Rule 1 preserves validity under this type of interpretation.

What we must prove about Axiom 3 ("$N(p \supset q) \supset (Np \supset Nq)$") is that there is no world in K about which "$N(p \supset q)$" and "Np" are true, but "Nq" is false, for any values of "p" and "q." Suppose, for any world *w* in K, that "$N(p \supset q)$" and "Np" are true about *w*. That means that "$p \supset q$" and "p" are true about every world which is possible in *w*. That can be so only if "q" is true about every world which is possible in *w*. Therefore "Nq" is true about *w*. Thus, for any world *w* in K and for any values of "p" and "q," if "$N(p \supset q)$" and "Np" are true about *w*, "Nq" is true about *w*. Axiom 3 ("$N(p \supset q) \supset (Np \supset Nq)$") is valid about all worlds in K, under the type of interpretation considered here.

Finally, we may observe that Rule 1, which permits us to assert "N*a*" as proved if "*a*" is an axiom or theorem of the system, preserves validity in S4 and/or S5 under the two interpretations we are considering. Rule 1 could fail to preserve validity only if there is some formula "a" which is provable in the system and which is such that "a" is valid about the actual world but "Na" is not. That could be the case only if "a" is valid about the actual world but not about all worlds that are possible in the actual world. But no such formula is provable in S4. Every formula provable in S4 must be derivable from the axioms of non-modal propositional calculus and/or from modal Axioms 2, 3, and 6--all of which we have seen to be valid about all worlds possible in the actual world. Every formula provable in S5 must be derivable from these same axioms and/or from Axiom 5--which is valid about all worlds possible in the actual world, if the relation of accessibility is symmetric as well as transitive. The rules by which they are derivable are the rules of the classical non-modal propositional calculus, which certainly preserve validity about all possible worlds, and Rule 1 itself. Suppose "a" is derivable without any use of Rule 1; then clearly it is valid about all possible worlds, and "Na" is valid about the actual world. Thus Rule 1 can be applied a first time without loss of validity. But if "a" is valid about every world possible in the actual world, it is valid about every world which is possible in any world possible in the actual world, since the relation of accessibility is transitive. Therefore, if "a" is valid about every world possible in the actual world, "Na" is valid not only about the actual world but also about every world possible in the actual world. Hence if "b" is provable in the system with only one use of Rule 1, to derive "Na" from provable "a," "b" is still valid about all worlds possible in the actual world; so "Nb" is valid about the actual world. Thus Rule 1 can be applied a second time without loss of validity. Any number of applications of Rule 1 can be justified in this way, recursively. The application of Rule 1 cannot introduce any failure of validity.

I believe the above reasoning shows that S5, as well as S4, is valid under the type of interpretation considered here, if the relation of accessibility between possible worlds is symmetric; and that S4 but not S5, is valid under this type of interpretation, if the relation of accessibility is not symmetric. The same reasoning establishes the validity of S4 under any interpretation which satisfies the following conditions. (1) The meaning of "Np" is specified by the rule (S). (2) The actual world is assumed to be a member of a class K of worlds on which the relation of accessibility is defined. (3) The classical non-modal propositional calculus is valid about all worlds in K. (4) The relation of accessibility is reflexive and transitive. If we add (5) that the relation of accessibility is symmetric, S5 is valid too; but if the relation is not symmetric, S5 is not valid.

As I indicated at the beginning of this section, I think it is usually assumed that the relation of accessibility is symmetric as well as reflexive and transitive, so that just the same worlds would be possible no matter what world were actual. This is apt to be taken so much for granted that worlds are thought of as possible absolutely, and not relatively to some given world. Under such assumptions, if necessary truth is conceived as truth about all possible worlds, S5 is valid. And S5 includes all the modal logic that is needed for Modal Arguments A and B.

IV

We have seen, however, that there could be an interpretation of necessity in terms of truth about all possible worlds which would validate

S4 but not S5. And we are now in a position to prove, as I promised in Chapter Two, that "God exists" cannot be proved from Premises I and II in S4 (and therefore not in any system contained in S4).

The strategy of the proof is to take an interpretation of the modal operators which validates S4 and, using it, construct a model in which "$N(p \supset Np)$" and "$\sim N \sim p$" are true but "p" is false. For if we can find such an interpretation and such a model, it follows that "$N(p \supset Np)$ and $\sim N \sim p$; therefore p" is not an inference pattern that is derivable in S4. This is essentially one of the strategies of proof embodied in the method of proof by "semantic tableaux" used by Kripke in the paper cited above;[29] but I shall present the argument in a less technical form.

The interpretation we shall use is the theological interpretation presented in section III which validated S4 but not S5--that is, the theological interpretation in which the relation of accessibility is reflexive and transitive but not symmetric. As I have pointed out above, this is an interpretation under which "It is necessary that God exists" is clearly true. What I shall be arguing is that for _some_ value of "p" (_not_ for the value "God exists") "$N(p \supset Np)$" and "$\sim N \sim p$" may be true, but "p" false, under this interpretation--and therefore that the inference _pattern_ "$N(p \supset Np)$ and $\sim N \sim p$; therefore p" is not valid in S4. Our counter-model will be constructed as follows. Let $\underline{w}_1$ be the actual world. Since the relation of accessibility is not symmetric we may consistently assume that there is a world $\underline{w}_2$ which God actually (in $\underline{w}_1$) conceives but in which God does not conceive $\underline{w}_1$ (i.e., $\underline{w}_1 R \underline{w}_2$ but not $\underline{w}_2 R \underline{w}_1$). Now let "$p$" stand for the proposition "God does not perfectly conceive $\underline{w}_1$." "p" is false about $\underline{w}_1$, and therefore false _simpliciter_, since $\underline{w}_1$ is the actual world. It is false about $\underline{w}_1$ because the relation R is reflexive. But "p" is true about w_2, which is a world possible in w_1; and therefore "$N{\sim}p$" is false, and "${\sim}N{\sim}p$" is true, about w_1. So "${\sim}N{\sim}p$" is true. If we can show that "$N(p \supset Np)$" is true our proof will be complete. But how could it be false? It could be false only if "$p \supset Np$" is false about some world possible in w_1. Suppose w_3 is such a world: "p" must be true, and "Np" false, about w_3. That means "p" is true about w_3 but false about some world possible in w_3. In other words, God does not, in w_3, perfectly conceive w_1; but He does in w_3 perfectly conceive a world in which He perfectly conceives w_1. This is impossible, as was argued in section III. Therefore there is no such world as w_3; "$p \supset Np$" is not false about any world possible in w_1. "$N(p \supset Np)$" is true.

What this shows is that there is an interpretation of the modal operators under which S4 is valid but it is possible for "$N(p \supset Np)$" and "${\sim}N{\sim}p$" to be true though "p" is false. It follows that "$N(p \supset Np)$ and ${\sim}N{\sim}p$; therefore p" is not a derivable inference pattern in S4. For if "$N(p \supset Np)$ and ${\sim}N{\sim}p$; therefore p" were a derivable inference pattern in S4, S4 must be invalid under any interpretation under which it is possible for "$N(p \supset Np)$" and "${\sim}N{\sim}p$" to be true though "p" is false. The modal argument for the existence of God requires a system of modal logic in which "$N(p \supset Np)$ and ${\sim}N{\sim}p$; therefore p" is a derivable inference pattern. Therefore the modal argument for the existence of God cannot succeed unless we are given a system of modal propositional calculus which is not contained in S4.

V

Let us try to draw together some conclusions from our studies in Chapters Two and Three. We have seen that the modal argument for the existence of God requires a system of modal propositional calculus in which "$N(p \supset Np)$ and $\sim N \sim p$; therefore p" is a derivable inference pattern. We have found that it is a derivable inference pattern in at least four systems, two of them well known to logicians, but that it is not a derivable inference pattern in certain other well known systems. What systems we are entitled to use depends on what meaning or interpretation we assign the modal operators. We have seen that the interpretations of the modal operators in terms of time are of no use for the modal argument for the existence of God. But the interpretation of necessary truth as truth-solely-by-virtue-of-meanings, which is the interpretation explicitly intended by Malcolm and Hartshorne, was found to validate a system which is adequate for the argument. The interpretation of necessary truth as truth-about-all-possible-worlds also validates a system adequate for the argument, if it is assumed, as it usually is, that just the same worlds would be possible no matter what world were actual.

In view of these results, I think it will be reasonable for us to assume, as a working hypothesis, that the modal axioms needed for Modal Arguments A and B are valid, and that Modal Arguments A and B are sound if Premises I and II are true. Of course, if we find convincing reasons for believing that Premises I and II are true, then we shall need to check to make sure that they are both true under one and the same interpretation of modal terms and operators, and that that interpretation is one which validates the modal axioms needed for Modal Argument A or B.

PART TWO: THE FIRST PREMISE

INTRODUCTION TO PART TWO

Our task in Part Two is to assess the truth of Premise I ("$N(g \supset Ng)$"). We must try to discover whether "God exists" entails "It is necessary that God exists." We will assume that by "necessary" in "It is necessary that God exists," a defender of the modal argument means "logically necessary." In three chapters several features of the concept of God will be considered by virtue of which it has been claimed that God's existence must be conceived as logically necessary.

Chapter Four will be devoted to Anselm's argument for Premise I. Two arguments of Norman Malcolm and Charles Hartshorne, in favor of the proposition that the concept of God is the concept of a logically necessary being, will be discussed in Chapter Five. In Chapter Six we will consider the suggestion that God's existence can be conceived of as necessary but not logically necessary, as this theory has been explained by Alvin Plantinga.

The following general point about the concept of a logically necessary being calls for brief discussion in this Introduction.

Thus far we have not paid any attention to the internal logical structure of the proposition "God exists" ("g"). Perhaps the most natural way of expressing that structure, from the point of view of modern formal logic, is by the formula "$(\exists x)$ (x is God)"—"There exists an _x_ such that _x_ is God." In that case the proposition "It is necessary that God exists" ("Ng") becomes "$N(\exists x)$ (x is God)"—"It is necessary that there exists an _x_ such that x is God." If we interpret "necessary" in terms of truth about all possible worlds, this latter proposition means

(a) In every possible world there exists an x
such that x is God.

The proposition, "It is necessary that God exists," plays a very important part, of course, in the modal argument for the existence of God, and may be regarded as one of the conclusions of the argument. If its internal logical structure is correctly expressed by proposition (a), the question may arise whether, if (a) is true, it is the same x which is God in every possible world, or whether there are perhaps different possible individuals which are God in different possible worlds. Proposition (a) appears to leave this question open; it seems to be consistent with the supposition that though Yahweh (if that is His name) is God, there are other possible worlds in which Yahweh does not exist and some other individual (Zeus, say, or Baal) is God.

Surely it would be in keeping with the intentions of the supporters of the modal argument to close off this possibility, and to insist that it is the same individual who is God in all possible worlds. What they mean by saying that God is a logically necessary being is perhaps less adequately expressed by proposition (a) than by the proposition

(b) There is an x such that in every possible
world x exists and is God.

The thesis that God is a logically necessary being does not just mean that it is logically necessary that the concept of God be satisfied by some individual or other. To say that God is a logically necessary being is to say, in part, that the concept of God is satisfied by an individual whose existence (as the very individual He is, and no other) is logically necessary.

We must observe, nonetheless, that (a) rather than (b) is the correct formulation of "It is necessary that God exists" in the modal argument for the existence of God. For (b) does not represent, as (a) does, the form "Np," but rather the form "$(\exists x)\ N\ \emptyset(x)$." Since the formulation of the modal argument depends on the formal relations between "g" and "Ng," it is essential that "Ng" has the form it has, and not the more complicated form "$(\exists x)\ N\ \emptyset(x)$." It is (a), therefore, and not (b), which is a conclusion of the modal argument. If the defenders of the modal argument mean to assert (b), as I think they certainly do, the justification of this assertion requires an additional stage of argument which goes beyond, or supplements, the modal argument.

I believe it is possible to discern the probable lines of such an additional stage of argument. Unlike most other champions of the modal argument, Charles Hartshorne has seen the need for such additional argument, and has attempted to provide it. He argues that the concept of God is such that it could be satisfied by only one possible individual--that there cannot be different possible individuals who would, if actual, satisfy the concept of God. Hence he concludes, if it is necessary that there exists a God, it is necessary that there exists the one possible individual who could satisfy the concept of God.[30]

I think Hartshorne's fellow partisans of the modal argument would in general agree with him that the concept of God can be satisfied by only one possible individual. They do not, perhaps, regard the word "God" as a proper name; but they assume that deity is logically tied to one single individual, as tightly as if "God" were a proper name. Let us suppose that "Yahweh" is the proper name of the individual who is God;

then the advocates of the modal argument do not admit any difference between being Yahweh and being God. They do not regard it as logically possible that any being other than Yahweh should be God, or that Yahweh should exist without being God. I say this assumption is made by the defenders of the modal argument; I explicitly do not ascribe it to the critics of the argument. As a matter of fact, we shall see that there is some reason to believe that such critics as Terence Penelhum and Alvin Plantinga do not regard it as logically impossible for Yahweh (if that is His name) to exist without being God.

But if we do assume that it is logically impossible for any individual other than Yahweh to be God, it follows that we are entitled to infer (b) from (a). For (a) says that in every possible world some individual is God; and if we assume that Yahweh is the only individual that can be God in any possible world, it follows that there is an individual (Yahweh) who exists, and is God, in every possible world.

My reason for discussing these matters at this point in the dissertation is that in all the arguments for Premise I which we shall discuss in Part Two it will be presupposed by the defenders of the modal argument that (a) does entail (b), and that the necessary existence of God means the necessary existence of Yahweh (if that is His name) and not just of some God or other. This presupposition will sometimes, but not always, become explicit in our discussion of the particular arguments for Premise I; I think it can be seen that none of them would make much sense without it. The reader ought therefore to have the presupposition in mind as he approaches the arguments.

Whether this presupposition is justified--or whether it is true that there is only one possible individual who could satisfy the concept of

God--I shall not attempt to say. Nor shall I attempt to deal with any difficulties which may arise in connection with the idea that a certain individual, such as Yahweh, and not just some God or other, exists in every possible world. There are very thorny problems about the whole subject of identity or nonidentity of individuals in different possible worlds;[31] and it seems to me that this constitutes an important problem area for those who conceive of God as a logically necessary being. In particular, it is an area one would have to explore before one would be entitled to conclude that any of the arguments to be considered in Part Two had definitely shown that Premise I is true. As I think we shall find other reasons for regarding these arguments as inconclusive, however, and as we shall have quite enough to keep us busy with issues that have been more widely discussed in the literature on the modal argument, I shall not attempt any thorough exploration of these problems of divine individuality in this essay.

CHAPTER FOUR: ANSELM ON PERFECTION AND NECESSARY EXISTENCE

This chapter is divided in three sections. In the first I try to analyze the structure of the argument by which Anselm supports Premise I. The second and third sections are concerned with two different premises of the argument.

I

In Chapter Two above I quoted a passage of Anselm which expresses rather clearly the structure of the modal argument for the existence of God, and its principal modal logical assumption. There is a better known passage in the third chapter of the Proslogion which expresses Anselm's reasons for believing that the existence of God could not be contingent.[32]

> Certainly this being exists so truly that it cannot be even conceived not to exist. For it can be conceived that there exist something which cannot be conceived not to exist.[33] And this is greater than that which can be conceived not to exist. Therefore, if that, than which a greater cannot be conceived, can be conceived not to exist, then the very thing than which a greater cannot be conceived is not that than which a greater cannot be conceived—and this cannot be consistent. Something than which a greater cannot be conceived exists so truly, then, that it cannot be even conceived not to exist.
>
> And thou art this being, O Lord our God.[34]

If we read this passage literally, Anselm seems to be arguing as follows.

(1a) It can be conceived that there exists something (otherwise unspecified) which cannot be conceived not to exist.

(2a) Any being which cannot be conceived not to exist is greater than any being which can be conceived not to exist.

(3a) Therefore, any being which can be conceived not to exist is not a being than which a greater cannot be conceived.

It is assumed that God is defined as a being than which a greater cannot be conceived.

Premise (2a) is extremely implausible, at least at first glance. Two examples may help us to see this. Let us suppose that the rational numbers are properly said to exist, and cannot be conceived not to exist. According to (2a), anything at all which cannot be conceived not to exist is greater than anything at all which can be conceived not to exist. It follows that the fraction $1/1,230^{21}$ is greater than Albert Einstein, because the fraction cannot be conceived not to exist but Dr. Einstein can. Or suppose that possibilities are properly said to exist as such, and cannot be conceived not to exist. It will follow that the possibility of a grain of sand is a greater thing than the actual Milky Way galaxy because the possibility cannot be conceived not to exist but the galaxy can. I will not try to establish here that there could not be metaphysical arguments which would justify such judgments. But these judgments have so little immediate plausibility that I think it is worthwhile to see if we can find another interpretation of Anselm's argument, which will not use (2a) as a premise.

We are looking for an interpretation which will represent Anselm as claiming only that necessary existence (inconceivability of nonexistence) is a property which makes a thing greater than it otherwise would be.

The desired premise will say that other things being equal, a thing which cannot be conceived not to exist is better than a thing which can be conceived not to exist. One proposition which seems to say this is the proposition that necessary existence is a perfection.

In chapter 15 of the Monologion, Anselm declares that God must be conceived as having all properties of a certain type--we may call them "perfections," although he does not. He describes them as "whatever [it] is universally better [to be] than [to be] not it."[35] He makes it plain that he does not mean that everything which has any given perfection must be better than everything which does not have it. Wisdom, for instance, is a perfection; but Anselm says that an unwise being may be a better being than a wise being, if the unwise being is just and the wise being is unjust. But "everything that is not wise would be better if it were wise."[36] Anselm seems to be saying that if a being has properties which are inconsistent with wisdom, it would be a better being if it had wisdom instead; and if a thing has properties (such as he supposes justice and injustice to be) which are consistent both with wisdom and with unwisdom, it will be a better being if it has them and wisdom than if it has them and unwisdom. If this interpretation is correct, the Anselmian conception of what I am calling a "perfection" can be expressed by the following equivalence. ("F" and "G" are variables ranging over all properties, simple and complex.)

> To be F is to have a perfection if, and only if: for every G which does not imply F, if F and G are inconsistent, then for any being whatever, to be F is better than to be G; and if F and G are consistent, then for any being whatever, to be F and G is better than to be G but not F.

This definition has several interesting consequences. (i) All perfections, so defined, must be consistent with each other. For let F_1 and G_1 be any two properties which are inconsistent with each other. Either to be F_1 is better than to be G_1, or to be G_1 is better than to be F_1, or neither is better than the other. If to be F_1 is better than to be G_1, then G_1 is not a perfection. If to be G_1 is better than to be F_1, then F_1 is not a perfection. If neither is better than the other, then neither is a perfection. In no case can both F_1 and G_1 be perfections, if they are inconsistent with each other. All perfections are consistent with each other, and we may conclude that it is possible for there to exist a being which has all perfections.

(ii) It also follows that a being than which a greater cannot be conceived must have all perfections. (I am assuming that Anselm is using "greater" and "better" to mean the same thing--namely, more admirable, more worthy of veneration or worship. "Greater" cannot mean larger in mass or weight or spatial dimensions; and "better" cannot mean more useful, more agreeable, or better suited to some particular purpose.) The reverse implication does not hold. A being could have all perfections and yet a greater be conceivable, which would have its perfections in a higher degree. The possibility of a being which has all perfections does not guarantee the possibility of a being than which a greater cannot be conceived; for there might be a perfection a higher degree of which can always be conceived. But if there is a being than which nothing greater can be conceived, it must have all perfections, for the following reasons.

Suppose there is a being x, than which nothing greater can be conceived, who lacks a certain perfection, F_2. ("Conceived" in this argument means "consistently conceived.") It either can or cannot be conceived that a being than which nothing greater can be conceived has F_2. If it can be conceived, then x would be greater if it had F_2, because F_2 is a perfection; and therefore x, without F_2, is not a being than which a greater cannot be conceived. But if it cannot be conceived that a being than which nothing greater can be conceived has F_2, then F_2 is not a perfection. For in that case, F_2 is inconsistent with the property of being a being than which nothing greater can be conceived, and it is absurd to suppose that it is better to be F_2 than to be a being than which nothing greater can be conceived (since "a being than which nothing greater can be conceived" means precisely a being such that it is not better to be anything else that is conceivable than to be it). In short, either F_2 is consistent with being a being than which a greater cannot be conceived, or it is not. If it is not, it is not a perfection. If the two properties are consistent, then if F_2 is a perfection no being which lacks F_2 can be a being than which a greater cannot be conceived. In no case can a being than which a greater cannot be conceived lack any perfection.

(iii) Obviously this implies that if necessary existence is a perfection, nothing which can be conceived not to exist could be a being than which a greater cannot be conceived. We might suppose, therefore, that the proposition "Necessary existence is a perfection" is the premise we are looking for. But it turns out that this proposition has no more immediate plausibility than (2a).

For suppose, as some philosophers have believed, that necessary existence is a property which belongs, and can belong, only to "abstract entities" such as numbers and possibilities. Then if necessary existence is a perfection, to have necessary existence must be better or greater than to be anything (such as Albert Einstein or the Milky Way galaxy) which is not an abstract entity and which therefore cannot have necessary existence. This is just the sort of consequence which made us doubt the plausibility of (2a).

It would be very difficult to establish that necessary existence is a perfection, in the sense defined. One would have to show first that necessary existence is possible--that the nonexistence of a being can be inconceivable. Then one would have to discover what properties are consistent with necessary existence, and what properties are inconsistent with it. And one would have to show that to have necessary existence is better (greater) than to have any of the properties which are inconsistent with it. I think it is reasonable for us to try to avoid this task at this point in our investigations.

Let us see if we can find yet another interpretation of Anselm's argument in Proslogion 3. In Proslogion 2 Anselm argues,

> And certainly that than which a greater cannot be conceived cannot exist in the understanding alone. For if it exists even in the understanding alone, it can be conceived to exist also in reality, which is greater.[37]

Perhaps a similar strategy can be discerned in chapter 3. Perhaps Anselm is arguing as follows. That than which a greater cannot be conceived cannot be conceived not to exist. For suppose that it can be conceived not to exist. Then it can be conceived that it cannot be conceived not to exist--which is greater.

The two crucial premises of this argument may be reformulated as follows.

(1b) It can be conceived that there exists something which cannot be conceived not to exist and which in all other respects satisfies the concept of a being than which a greater cannot be conceived.

(2b) If, of two conceivable beings which in all other respects satisfy the concept of a being than which a greater cannot be conceived, one cannot be conceived not to exist but the other can be conceived not to exist, the former is greater than the latter.

To put the matter less formally, these premises say (1b) that God can be conceived as existing necessarily, and (2b) that if He were to exist necessarily He would be greater than He would be if He existed otherwise than necessarily.[38] (2b) has, I think, considerably more immediate plausibility than (2a). It makes no claim that everything which has necessary existence is greater or better than anything which does not. It says only that God would be greater if He existed necessarily than if He existed contingently.

(1b) and (2b) entail the same conclusion that we derived from (1a) and (2a). Suppose, for any x, that x is a being than which a greater cannot be conceived. Suppose also that x can be conceived not to exist. Then according to (1b) a certain being can be conceived which according to (2b) is greater than x. Therefore x is not a being than which a greater cannot be conceived, contrary to the hypothesis. The hypothesis is inconsistent with the conjunction of (1b) and (2b). Thus (1b) and (2b) imply

(3) Therefore, any being which can be conceived not to exist is not a being than which a greater cannot be conceived.

We will take this argument, from (1b) and (2b) to (3), as the basis for our study in the remainder of this chapter. We will be using the word "perfection" hereafter somewhat differently from the way in which it has been used in this section. We will not be using it to refer to properties of the type discussed by Anselm in Monologion 15. We will say that necessary existence is a perfection, or at least a perfection in God, if and only if proposition (2b) is true.

Proposition (3) might possibly be rendered as "If God exists, it is necessary that God exists." This is not enough for the modal argument for the existence of God. The first premise of the modal argument for the existence of God must claim that it is necessary that if God exists, it is necessary that God exists. So if this Anselmian line of reasoning is to establish the truth of Premise I of the modal argument, it must show that (3) is not only true but a necessary truth. This it can do only if (1b) and (2b) are shown to be not only true but necessary truths.

I think we can say at least that if (1b) is true, it is necessarily true. If the modal formula "$Mp \supset NMp$," which is provable in System A as well as in S5, is satisfied by an interpretation of possibility in terms of conceivability, then what is conceivable is necessarily conceivable. And in that case if (1b) is true it is necessarily true, since (1b) is an assertion that the existence of a certain being is conceivable.

I think there is also some plausibility to the claim that if (2b) is true, it is necessarily true. It certainly does not appear to be an empirical proposition. And as it asserts something to be true of all conceivable beings of a certain description, it is not easy to see how it could be actually true, but false in some conceivable world. But I hesitate to make any definite judgment on this point, because so much is obscure to me in the larger question of what modal status is to be assigned to assertions of the superiority of one kind of thing to another.

Of course (1b) and (2b) cannot be necessary truths unless they are at least true. It will not be possible in this chapter to prove that they are, or that they are not, true. In the second section of the chapter I shall argue that arguments which are commonly believed to prove that (2b) is false are not cogent. (1b) will be discussed in the third section; but no attempt will be made there to pronounce on its truth. The question whether (1b) is true turns on issues about possibility which are not to be considered until Part Three of the dissertation.

II

I want to make two points about the claim that logically necessary existence is, or would be, a perfection or superiority in God. The first point is that that claim has very limited importance for the modal argument for the existence of God. The second point is that the usual arguments against the claim are unsuccessful.

(A) It is commonly said that whereas the "first," or historically more familiar, form of the ontological argument requires that existence be regarded as a predicate and a perfection, the "second" form of the ontological argument (i.e., the modal argument for the existence of God) requires that necessary existence be regarded as a predicate and as a perfection. This is at best a half-truth. Necessary existence is not used as a predicate, or said to be a perfection, in any of the steps of Modal Argument A or B. The concept of necessity enters into those formulations of the modal argument only by way of the propositional operator "it is necessary that..."

The Anselmian defense of Premise I which we are studying in this chapter does turn on the claim that necessary existence is a perfection or superiority in the thing which necessarily exists. But we shall also consider lines of defense for Premise I which do not depend on the claim at all. The claim is therefore of rather limited importance for the modal argument for the existence of God. It is not an essential part of the modal argument itself, but only of some defenses of one of the premises of the modal argument.

(B) In any case, the usual objections against the claim that necessary existence is a perfection are not convincing. I shall not try to show here that the claim is true, but only that the usual arguments against it have no force. The most important of the objections I mean to refute have been particularly well stated by Terence Penelhum; I have divided the following passage in two parts, as I think it contains two distinct arguments.

> [i] I must confess here to a certain feeling of oddity at the very suggestion that the logical necessity of an assertion about a being is a superiority in that being. I can see, for instance, that someone might hold that being unmarried is superior to being married, but I cannot see that anyone could hold that it is an additional superiority in a bachelor that there is a logically necessary connection between being a bachelor and being unmarried. I can see that it is a perfection in God that He is omnipotent, but I cannot see that it is an additional perfection in Him that His divinity is logically connected with His omnipotence. Such a connection, after all, is in our language and not in His nature.

3

> [ii] Even supposing one could plausibly suggest that such a connection were a perfection, I can only read this in a sense in which the logical necessity of a being's having a certain property was an additional perfection if (and only if) the property itself was a perfection, so that the logical necessity would become an additional imperfection if the property itself were an imperfection. (Thus the logical necessity of "God

> is omnipotent" would be an additional perfection in God because omnipotence is a perfection, and the logical necessity of "liars are deceitful" would become an additional imperfection in liars because deceitfulness is an imperfection.) Since, however, existence is not itself a perfection, I am unable to see intelligible grounds for maintaining the logical necessity of existence to be one either, even in this second-order way.[39]

(i) In the first part of his argument Penelhum tries to establish that the logical necessity of an assertion about a being is to be located "in" our language rather than "in" the nature of that being, and therefore cannot constitute a superiority in that being. He is saying, I take it, that when we say it is a logically necessary truth that God is omnipotent, we mean that if anything is not omnipotent we will not call it "God"--just as, when we say it is a logically necessary truth that all bachelors are unmarried, we mean that if anything is not unmarried we will not call it a "bachelor." And surely Penelhum is right in holding that if that is what we mean, we are not ascribing a superiority to God or to bachelors when we say that those propositions about them are logically necessary. Omnipotence is a superiority, and some have thought that the single state is superior to marriage, but it is certainly not an additional superiority in something which possesses one of those properties, that if it did not possess that property we would not call it something we in fact do call it.

But does this argument have any tendency to show that necessary existence is not a superiority? When someone says it is a logically necessary truth that God exists, does he mean that if anything does not exist we will not call it "God"? Surely not. He means to say that it is a logically necessary truth that there is a certain individual who is God. "It is necessary that God is omnipotent," understood as Penelhum understands it, has the logical form "In every possible world, for every x, if x is God then x is omnipotent." But as was explained in the Introduction to Part Two, "It is necessary that God exists" has the logical form "In every possible world there is an x that is God." And this is understood by proponents of the modal argument as implying "There is an x such that in every possible world x exists and is God." This latter form might be expanded as follows, in order to avoid any appearance of treating existence as a predicate. "There is an x such that in every possible world there is a y such that y = x, and y is God."

Of course many philosophers, including Penelhum,[40] deny that any proposition can be true if it asserts that every possible world includes a being of a certain description. But that is an issue to be taken up in Part Three rather than here. The essential point here is that philosophers who assert that God's existence is logically necessary do mean to assert that there is a being who exists, and is God, in every possible world. They do not just mean that if a thing does not exist we will not call it "God." In fact, they are not making a conditional or hypothetical assertion at all. And if their assertion is to be interpreted as a claim about our language, it must mean that we cannot intelligibly and consistently describe a state of affairs in which God does not exist. It is not at all obvious to me that if that is true it does not constitute a superiority in God. For if it is true it does constitute a respect in which God is different from some or all other beings; and if He is different in that respect I do not see why He could not also be superior in that respect.

I believe it is at least clear that there is a sense in which necessary existence may be said to be a "property" of God, if it is true that there is an individual who exists, and is God, in all possible worlds.

We will say that if anything is true of an individual and is not (or under some possible circumstances might not be) true of some other existent individuals, it constitutes a "property" of that individual. And if two properties are not possessed (or under some possible circumstances would not be possessed) by exactly the same individuals, we will say they are not the same property but distinct from each other.

Now we may still deny that being necessarily unmarried is a property of bachelors distinct from being unmarried. For there neither is nor could be an individual who is unmarried but not necessarily unmarried in the sense in which all bachelors are necessarily unmarried. All bachelors are necessarily unmarried in the sense that "All bachelors are unmarried" is a necessary truth. But any individual who is unmarried will satisfy some description "F" such that "All F's are unmarried" is a necessary truth. If only human beings can be called "unmarried," then any unmarried individual must satisfy the description "human being who is not married." And "All human beings who are not married are unmarried" is a necessary truth. So exactly the same individuals, under all possible circumstances, will be necessarily unmarried as are unmarried. Therefore being necessarily unmarried is not a property distinct from being unmarried.

Not so with necessary existence. Suppose it is true that there exists an individual who exists, and in God, in every possible world. It follows that God is an individual who possesses the property of existing in every possible world. In that sense He possesses necessary existence. And this clearly is a property, in the sense explained above. For it is something which is (we are supposing) true of God, but which is certainly not true of all existent individuals. Human individuals, for instance, fail to exist in some possible worlds.

In other words, given the assumption that there is an individual who exists, and is God, in every possible world, necessary existence is a property of God in the sense that one way in which He differs from at least some other existent individuals is that it is logically necessary that He exists, but not logically necessary that they exist. And if God does differ from other individuals in this respect, I do not see that part (i) of Penelhum's argument shows that God could not be superior to other individuals in this respect. That is, it has not been proved that necessary existence is not a superiority in God.

There remains to Penelhum perhaps one line of attack in part (i) of his argument which we have not yet explored. I have argued that even though bachelors do not differ from other unmarried beings by being necessarily unmarried, God may differ from other existents by existing necessarily. But it may be that Penelhum did not mean to depend as much as I have supposed on this aspect of the bachelor example. Perhaps his statement, that logical necessity is rooted "in our language and not in...[the] nature" of the thing of which we are speaking, expresses a theory of the linguistic nature of logical necessity--a theory which is not dependent on those features of the bachelor and omnipotence examples which I have been discussing. And perhaps Penelhum thinks this theory shows that even if God differs from other individuals in that it is logically necessary that He exists, He could not be superior to other individuals in this respect. I do not see clearly how this conclusion would follow from a theory of the linguistic nature of logical necessity. If Penelhum is to prove his point along these lines, he must spell out, in much more detail than he has done, what theory of the linguistic nature of logical necessity he espouses, and how this conclusion is supposed to follow from it.

(ii) The second part of the passage which I quoted from Penelhum contains a very different argument. Penelhum is not the only writer who has suggested that existence must be a perfection or a property or predicate if necessary existence is one. Raziel Abelson and R. E. Allen have pressed the same point, but I think Penelhum's argument is more subtle. Their polemical motive for raising this issue is that Malcolm had said emphatically that he did not believe that existence is a perfection, but that "necessary existence is a perfection."[41]

According to Abelson,

> One would think offhand that in the expression "necessary existence," "necessary" functions as an adjective modifying "existence," in the way "isosceles" modifies "triangle" in "isosceles triangle." Thus one would suppose that "existence," like "triangle," must stand for a generic property if "necessary existence," like "isosceles triangle," stands for a specific property.[42]

Perhaps this is merely an argument from grammatical analogy--a very weak sort of argument. Or perhaps the intended point is that "necessary existence" seems to indicate a kind of existence, as "isosceles triangle" indicates a kind of triangle, and it may be thought that if a certain kind of existence is a property, existence must be a property.[43] I suppose necessary existence is a kind of existence, but for that very reason I am inclined to doubt the initially plausible principle that existence must be a property if any kind of existence is a property. The chief reason for denying that existence is a property is that it is not "something which could be added to the concept of a thing" (as Kant put it);[44] it is not something by virtue of which things conceived of as existing could be conceived of as differing, by some of them having it and others not having it. There is not the same reason for denying that necessary existence is a property; as I have pointed out, if there are any necessary existents they do differ, precisely by virtue of their necessary existence, from many other existents (e.g., from Lyndon Johnson and the Taj Mahal) which do not have necessary existence. I have argued, along these lines, that if there is such a thing as necessary existence it is a property, in a sense of "property" which I think is the relevant sense; and I believe it is clear that existence is not a property in that sense. Therefore I am inclined to say that if there is such a thing as necessary existence, there is a certain kind of existence which is a property although existence is not a property (in that sense of "property").

Allen argues that if necessary existence is a predicate, and if "God necessarily exists" and "God exists" are logically equivalent propositions, as Malcolm says they are,[45] then existence must be a predicate. Certainly if "It is a necessary truth that God exists" is itself a necessary truth, it is logically equivalent to "God exists," in the sense in which all necessary truths are logically equivalent to one another. Allen claims that "a nonpredicative assertion cannot be equivalent to a predicative assertion"[46]; therefore if "It is a necessary truth that God exists" ascribes a predicate to God, so does "God exists." But I believe the claim that "a nonpredicative assertion cannot be equivalent to a predicative assertion" can be refuted by counter-example. "Some diamonds occupy space" certainly predicates something of some diamonds--namely, that they occupy space. It also seems clear that "Some diamonds occupy space" is logically equivalent to "Some diamonds exist." For how could they occupy space without existing? And how could a diamond exist without occupying space? But "Some diamonds exist" does not predicate anything of diamonds, if existence is not a predicate.

I think Penelhum's argument is more interesting. He points out that "x necessarily Fs" cannot plausibly be regarded as ascribing a perfection to x if F-ing is an imperfection in x. For instance, if "x is necessarily deceitful" ascribes to x a property that is distinct from deceitfulness, it is certainly not a better property than deceitfulness, but if anything, a worse one. The moral which Penelhum suggests is that necessary F-ing is a perfection if and only if F-ing is a perfection, and that necessary F-ing is an imperfection if F-ing is an imperfection. He concludes that necessary existence cannot be a perfection, because existence is not a perfection.

Certainly Penelhum is right in saying that necessary F-ing would not be a perfection if F-ing is an imperfection. But it seems to me that he is mistaken in inferring that necessary F-ing cannot be a perfection unless F-ing is a perfection. I do not see how that follows. For F-ing might be neither a perfection nor an imperfection; indeed, I take it that Penelhum thinks existence is neither a perfection nor an imperfection. We may agree that existence is neither a perfection nor an imperfection; it does not make a thing better or worse than anything else there is. But that is because it does not make a thing different from anything else there is. Necessary existence would make its possessor different from other things that exist, however. Therefore the fact that existence does not make a thing different from other things that exist does not seem to give us any reason for believing that necessary existence, which does make a difference, cannot make its possessor better than other things which exist.

Another line of attack on Penelhum's argument confirms this verdict. Suppose we interpret "x necessarily Fs" in terms of causal necessity, and take it to mean, "x Fs, and it is causally impossible that x should cease to F." The intuitions to which Penelhum appeals are, if anything, even stronger under this interpretation. The claim that the logical necessity of "Liars are deceitful" would be an imperfection in liars strikes us as fairly weak grounds for any argument, because neither we nor Penelhum believe that logically necessary deceitfulness is a property distinct from deceitfulness. But causally necessary deceitfulness (perhaps a psychopathic compulsion to deceive people) certainly is a property distinct from deceitfulness; and although it may be less reprehensible morally than causally contingent deceitfulness, it is just as certainly an imperfection and not a perfection. The claim that causally necessary F-ing is a perfection if and only if F-ing is a perfection seems to me at least as plausible as the claim that logically necessary F-ing is a perfection if and only if F-ing is a perfection.

But the claim that causally necessary F-ing is a perfection if and only if F-ing is a perfection leads to unacceptable consequences. Under our present causal interpretation, we will take "x necessarily exists" to mean "x exists, and it is causally impossible for x to cease existing." Causally necessary existence, in this sense, would be a causal form of the property which has been ascribed to God under the title "incorruptibility." So if causally necessary F-ing is not a perfection unless F-ing is a perfection, causal incorruptibility is not a perfection unless existence is a perfection, which it is not. Many philosophers and theologians, perhaps including Penelhum, have thought that causal incorruptibility is a perfection. Whether or not it is a perfection is debatable, but I think at least there is no plausibility to the claim that causal incorruptibility is not a perfection because existence is neither a perfection nor an imperfection.

I argue, therefore, as follows. The claim that causally necessary F-ing is a perfection if and only if F-ing is a perfection has at least as much plausibility as the claim that logically necessary F-ing is a perfection if and only if F-ing is a perfection. But the former claim does not seem to have any weight against the proposition that causal incorruptibility is a perfection. Therefore it is unlikely that the latter claim will have any weight against the proposition that logically necessary existence is (or would be) a perfection.

It has seemed overwhelmingly plausible, or even self-evident, to some philosophers and theologians that logically necessary existence is (or would be) a perfection. I shall not argue that they are right, but at least the received arguments that they are wrong all seem unconvincing.

III

In any assessment of its value as a proof, probably the most important fact about the argument from (1b) and (2b) to (3) is that it cannot be used to prove anything except on the supposition that the logically necessary existence of a perfect being is possible. Let us remind ourselves of what (1b) says.

> (1b) It can be conceived that there exists something which cannot be conceived not to exist and which in all other respects satisfies the concept of a being than which a greater cannot be conceived.

(1b) is a possibility premise; it asserts that a certain thing is conceivable, or logically possible. It asserts, in effect, that the logically necessary existence of a perfect being is possible. (I am using the expression "a perfect being" here as an abbreviation of "a being than which a greater cannot be conceived.")

The only way in which one could consistently accept (1b) and still deny that it is possible for the existence of a perfect being to be logically necessary would be by maintaining that a being, which in all other respects satisfied the concept of a perfect being, might fail to satisfy it solely because its existence was logically necessary. That is, one would have to hold that logically necessary existence is an imperfection. That would be directly opposite, of course, to what (2b) asserts, and I think it would be quite implausible. Whether or not logically necessary existence is a perfection, it at least does not seem to be an imperfection which would make an otherwise perfect being less great than it would have been if its existence had been contingent. And certainly if one is asserting (2b) together with (1b), as Anselm's argument requires, one cannot consistently regard logically necessary existence as an imperfection. I think it is fair, therefore, to treat (1b) as substantially equivalent, in its context, to the claim that the logically necessary existence of a perfect being is possible.

We can go one step further. If, as Anselm seems to assume, being a perfect being is a logically necessary and sufficient condition of being God, (1b) is substantially equivalent, in its context, to the claim that the logically necessary existence of God is possible.

This point has two important consequences.

(A) J. N. Findlay, in a celebrated article, used Premise I of the modal argument for the existence of God as a premise in an argument which purports to show that God's existence is logically impossible. Findlay argued "that the Divine Existence can only be conceived, in a religiously satisfactory manner, if we also conceive it as something inescapable and necessary, whether for thought or reality."[47] By this he meant, in effect, that God must be conceived as a logically necessary being. But Findlay was convinced that it follows from a sound philosophy of logic that it could not be a logically necessary truth that there exists a God. He concluded that there cannot exist a God.[48] His argument has the form,

(4) The contingent existence of God is impossible.

(5) The necessary existence of God is also impossible.

(6) Therefore the existence of God is altogether impossible.

The point that I want to make here is that although (1b) and (2b) together do imply that the contingent existence of God is impossible, they cannot consistently be used to support proposition (4) in Findlay's argument. For Findlay's second premise is that the necessary existence of God is impossible, whereas (1b) and (2b) together imply that the logically necessary existence of God is possible, as we have just seen. Of course I have not shown that no argument against the possibility of God's contingent existence could consistently be employed to support a proof that God's existence is altogether impossible, but Anselm's argument for Premise I is one argument which cannot consistently be so employed.

It is not entirely clear to me whether Findlay relied (inconsistently) on Anselm's argument. Findlay began by saying that "God" should be taken as meaning the "adequate object of religious attitudes," and that it is part of our concepts of "religious attitudes" that they "presume superiority in their objects"--and overwhelming superiority at that.[49]

He claimed that the logic of these conceptions leads us "irresistibly to demand that our religious object should have an unsurpassable supremacy along all avenues, and that it should tower infinitely above all other objects."[50] It seems at least natural to interpret Findlay as saying that an adequate object of religious attitudes must be a being than which a greater cannot be conceived. Then, he said, "we are also led on irresistibly to a yet more stringent demand...: we can't help feeling that the worthy object of our worship can never be a thing that merely happens to exist."[51] It is not clear to me how Findlay meant to justify this last transition. Presumably he thought it follows by a natural extension of the notions of overwhelming superiority and unsurpassable supremacy; but so far as I can see, he has not said explicitly what connection he thought these notions have with logically necessary existence. We have studied one attempt to show that unsurpassable supremacy among conceivable beings implies logically necessary existence. But that attempt is an argument which requires the assumption, which Findlay rejected, that the logically necessary existence of a perfect being is logically possible. Perhaps there is some other argument which shows that an overwhelmingly superior, or unsurpassable, being must inevitably be conceived as having logically necessary existence; and perhaps it is an argument which is consistent with Findlay's assumption that logically necessary existence is not a superiority which any being could conceivably have. But Findlay has not showed us any such argument, and I cannot imagine what it would be.

(B) We shall not be able to prove here either that (1b) is true or that it is false. For it is substantially equivalent, in its context, to the claim that the logically necessary existence of God is possible. Whether that claim is true or not, is precisely the question which will engage most of our attention in Part Three; so we can hardly expect to settle it here. In fact we will not be able to settle it in Part Three, and since Anselm's argument for Premise I, in the form in which we have discussed it, depends on proposition (1b), I think we will have to regard it as an inconclusive argument.

CHAPTER FIVE: MALCOLM AND HARTSHORNE--TWO RECENT ARGUMENTS FOR PREMISE I

In Chapter Four we studied a defense of the first premise of the modal argument for the existence of God, drawn from Anselm, who is usually credited with having invented the modal argument. The two leading contemporary proponents of the modal argument are Norman Malcolm and Charles Hartshorne; and in the present chapter we will consider two arguments for Premise I, one by Malcolm and one by Hartshorne. These are not the only reasons given by Malcolm and Hartshorne for believing that God must be conceived of as a logically necessary being. But the two arguments presented here seem to me to be particularly interesting.

I

The principal premises of the argument of Malcolm's to which I wish to call attention are found in the following passage.

> I think, however, that from the supposition that it could happen that God did not exist it would follow that, if He existed, He would have mere duration and not eternity. It would make sense to ask, "How long has He existed?," "Will He still exist next week?," "He was in existence yesterday but how about today?," and so on. It seems absurd to make God the subject of such questions. According to our ordinary conception of Him, He is an eternal being. And eternity does not mean endless duration, as Spinoza noted.[52]

By "an eternal being" here Malcolm evidently means a timeless being, a being who cannot properly be said to exist or not to exist, to do such and such a thing or not to do it, at any particular time. I believe his argument has the following form.

(1) No being whose existence is logically contingent could (logically) be a timeless being.

(2) God is conceived of as a timeless being.

(3) Therefore God cannot consistently be conceived of as a being whose existence is logically contingent.

Let us consider each of the premises in turn.

Proposition (1) might be supported by the following considerations. Most of the entities to which various philosophers have been disposed to ascribe timeless existence will be found to be entities such as numbers and abstract possibilities, whose existence, if it can be established at all, can be established by purely conceptual means and is therefore logically necessary. Moreover, one can plausibly say that it is the logical necessity of their existence which gives numbers that independence of events in time which inclines men to say that numbers are timeless. That is, the logical necessity of their existence may be seen as responsible for the alleged timelessness of numbers.

Conversely, if we think of those things whose existence is universally regarded as logically contingent--things such as trees, mountains, thunderstorms, human beings, and wars--we will find that they are in time. They have different properties at different times, and they can at least be conceived to begin or cease to exist. Perhaps one could not produce a single nontheological example of something which is clearly conceived of as a logically contingent but timeless being.

This reasoning gives proposition (1) some plausibility, but it certainly does not amount to a proof. It does not show that it is impossible for any being to be timeless without having logically necessary existence.

In particular, it does not show that that would be impossible for a being as different from numbers, trees, thunderstorms, and human beings as God is supposed to be. Malcolm does not give a proof of proposition (1), either. And, as Penelhum says in criticizing this part of Malcolm's argument, "it seems to cry out for demonstration that nothing can be eternally just so."[53]

Proposition (2), "God is conceived of as a timeless being," expresses a very familiar and very controversial thesis. Malcolm supports it by what I think is one of the more interesting arguments that have been given for the thesis. He claims that if God had logically contingent existence "it would make sense to ask" such questions about Him as "How long has He existed?" and "Will He still exist next week?" And Malcolm says,

> If a thing has duration then it would be merely a *contingent* fact, if it was a fact, that its duration was endless. . . . If something has endless duration it will *make sense* (although it will be false) to say that it will cease to exist.[54]

Malcolm maintains that it does not make sense to ask such questions about God, or to say that He will cease to exist. Malcolm's argument has the following form.

(4) If anything has duration it is logically possible that that thing began to exist, and logically possible that it will cease to exist.

(5) It is not logically possible that God began to exist, or that He will cease to exist.

(6) Therefore, God does not have duration.

The premises of this argument, (4) and (5), are extremely plausible; (5) may be regarded as an obvious truth. I will explain why one might be inclined to accept both premises; and then I will discuss one way in which Malcolm's argument might be attacked by someone who believes that the concept of God is the concept of a being whose existence is neither timeless nor logically necessary.[55]

Proposition (4) might be supported by the following argument. Let "X" be the proper name of an individual that has duration. X must exist throughout some period of time, since X has duration. Any period of time can be divided into smaller periods. And it seems that we can surely conceive of a period of X's duration separately from the periods which preceded and followed it. So even if X in fact always has existed and always will exist, we can conceive of a period of X's duration preceded by a period in which X did not exist, and followed by a period in which X will not exist. That is, we can conceive of X's having begun to exist and of X's ceasing to exist. I think this argument has considerable initial plausibility, which it imparts to proposition (4). As I shall explain in Chapter Seven, I think we would be wise to be skeptical about arguments which claim that "surely" or "obviously" we can conceive (not just imagine, but consistently conceive) one thing separately from another. Nonetheless, I agree that proposition (4) is plausible.

As for proposition (5), we may agree that it is not logically possible that God began to exist, or that God will cease to exist--in the following sense at least. It is part of the concept of God that He never began to exist and never will cease to exist. Any being which began to exist or will cease to exist thereby fails to satisfy the concept of God. In this sense (5) appears to be true.

But if that is all that is claimed in proposition (5), it may be argued that (4) and (5) together do not imply (6). This is the reply that we shall consider to Malcolm's argument for the timelessness of God. The reply runs as follows. Suppose X is God. Then it must be the case that X in fact never began to exist and never will cease to exist. But X's beginning and ceasing to exist may still be logically possible. "God began to exist" and "God will cease to exist" are self-contradictory. But "X began to exist" and "X will cease to exist" need not be self-contradictory. It is just that if X did begin or cease to exist, X would never have been God, would never have counted as God. I take it that Penelhum is (non-committally) suggesting this approach when he says, in his criticism of Malcolm,

> But it only fails to make sense [to wonder whether God would continue to be next week] in that it is self-contradictory to say He is God and then wonder about these matters. Someone who wished to hold that God is in time could say that in applying the divine title to Him one is merely asserting one's faith that He will continue to be through all time and will never be destroyed. But I do not wish to urge this point.[56]

If one does take this line suggested by Penelhum, however, one must make an assumption which has a certain oddity about it. One must assume that if X is God it is still logically possible that X should have existed (and have been the same individual, X) but not have been God. In other words, one must assume that the criteria of identity for the individual being who is God are such that he could have existed and been the individual he is without being God.

If we accept this assumption, the following question arises. What would God have been if He hadn't been God? That is, what would the individual who is God have been if He hadn't satisfied the concept of God? Perhaps Penelhum could answer, "The individual who is God might have been only a very powerful, wise, and good spirit who unfortunately failed to qualify for deity because his life eventually came to an end." But I am not sure that the ordinary concept of God allows for any such question and answer.

The assumption, that an individual who is God could exist, and be the same individual he is, without being God, seems strange to me. Perhaps it is no worse than strange--that is, perhaps it is not inconsistent with any of the really important features of the concept of God; I do not know whether it is. In any case I think there is at least a good deal of plausibility to the contrary assumption, that if any individual is God he logically could not exist and be the individual he is without being God. And I strongly suspect that Malcolm's argument depends on this latter assumption.

For suppose we accept the assumption that if an individual is God it is logically impossible for that individual to exist and not be God. And suppose that "X" is the proper name of an individual who is God. Then since "God will cease to exist" is self-contradictory, so is "X will cease to exist." Any being that will cease to exist does not count as X, because it does not count as God. But if "X will cease to exist" is self-contradictory, it follows from proposition (4) that X does not have duration. For according to proposition (4), if X has duration it is logically possible that X will cease to exist. Thus proposition (4), and the claim (5) that "God began to exist" and "God will cease to exist" are self-contradictory, do jointly imply the conclusion (6) that God does not have duration, _if_ we make the assumption that an individual who is God could not (logically could not) exist and not be God.

Malcolm's argument is certainly not rendered implausible by its dependence on this assumption. On the other hand, I doubt that the assumption is so firmly grounded that Malcolm's argument ought to be regarded as having demonstrative force. I do not think it is inconceivable that a theologian might be justified in supposing that an individual who is God could, logically, exist without being God. As I said above, that seems a strange idea to me, but it is not clear that it is inconsistent with centrally important beliefs of theistic religions. I believe a theologian might well accept it as the lesser of two evils, if he took a dim enough view of the problems involved in the proposition that God exists timelessly.

In other words, Malcolm's argument for God's timelessness does seem to have some force and gives reason to believe that there may be some advantages in conceiving of God as a timeless being. But a much wider survey of the relevant problems would be needed in order to show that the advantages of the conception of God as timeless outweigh its disadvantages--if indeed they do. Malcolm has not yet established proposition (2) ("God is conceived of as a timeless being") firmly enough for it to be a premise in a really compelling argument for the thesis that God is conceived of as a logically necessary being.

Malcolm has supported Premise I of the modal argument for the existence of God with an argument which depends on propositions (1) and (2) as its premises. Since no conclusive justification of either (1) or (2) has been given, they do not provide decisive grounds for accepting Premise I.

II

Hartshorne conceives of God as, among other things, "the perfect knower."[57] I think we must agree that it is part of the ordinary concept of God that He is a perfect or ideal knower. But Hartshorne argues that a perfect knower would have to be a logically necessary being. For if God is a perfect knower it follows, according to Hartshorne, that whatever is actual is perfectly known by God, and whatever is logically possible would be perfectly known by God if it were actual. God obviously could not conceivably know that He did not exist; so Hartshorne concludes that God's nonexistence cannot be logically possible, if God is a perfect knower.[58]

Let us examine this argument in greater detail.

I am sure it would be generally agreed that if x is a perfect knower, at least the following must be true of x.

> (i) For every proposition, p, if p is true x knows that p is true, and if x believes that p is true, then p is true.

But Hartshorne claims there is something else that must be true of x if x is to count as a perfect knower.

> (ii) For every proposition, p, if p is not true but its truth is logically possible, then if p were true x would know that p was true.

This is a plausible claim. Suppose x satisfies condition (i)—that is, suppose x knows everything that is true and has no false beliefs. Among other things, x knows that there are nine planets in our solar system. But suppose x's "know power" is limited, so that if there were more than fifteen planets in our solar system he would not be able to know that. Surely in that case x would not qualify as a perfect knower. He might be said to have perfect knowledge, but a perfect knower he would not be, because his power to know would not have been great enough to give him perfect knowledge if the sun had had more than fifteen planets. A perfect knower must have perfection not only in actual knowledge but also in cognitive powers which there happens to have been no occasion to exercise. He must not only know what is actually the case; he must have such cognitive powers that he would also know if something else were the case. And if one is demanding perfection in cognitive powers, why settle for anything less than condition (ii)?

A being which satisfies conditions (i) and (ii) cannot be a logically contingent being. His nonexistence must be logically impossible; for if the proposition that he does not exist could, logically, be true, it must be the case that he would know it if it were true--which is absurd. Therefore a perfect knower must have logically necessary existence, if Hartshorne is right about the conditions which a perfect knower must satisfy. And God cannot have logically contingent existence, if the concept of God is the concept of a perfect knower, in the sense of "perfect knower" suggested by Hartshorne.

I think this is not a very weighty argument against conceiving of God as having logically contingent existence. There is something odd in representing a being's inability to know his own nonexistence as a gap in his cognitive powers. If God did not exist He would not know that He did not exist; but that would not be because He would be ignorant of it, or not clever enough to know it. It would be because He would not exist.

If we believe that God must be conceived of as a logically contingent being, we might want to define the concept of a perfect knower in terms of the notion of "perfect cognitive powers," as follows. A being, x, may have perfect cognitive powers even though it is conceivable that x had never existed, or had lacked the cognitive powers he in fact possesses. What is implied in saying that x has perfect cognitive powers is that in any conceivable state of affairs in which x existed and had the cognitive powers he in fact has, x would know all truths and would hold no false beliefs. A being is a perfect knower, then, if he has both perfect knowledge and perfect cognitive powers. x has perfect knowledge if he satisfies condition (i). x has perfect cognitive powers if he has perfect knowledge and also satisfies the following condition.

> (ii′) For every proposition, p, if p is not true but its truth is logically possible, then if p were true and x existed and had the cognitive powers which x in fact has, x would know that p was true.

I think this is a plausible sense of "perfect knower." And in this sense God could be a perfect knower even if His nonexistence is logically possible. The fact that He could not know that He did not exist does not show that He could not be a perfect knower, because it does not constitute something which could be true but unknown to Him if He existed and had the cognitive powers which He in fact has.

This is not to deny that Hartshorne's conception of a perfect knower is also plausible, given certain assumptions. If we believe that there could be an intelligent being whose nonexistence is inconceivable, then the claim that a being should not count as a perfect knower if there is any conceivable fact which he could not know, has some appeal. But if we believe that it is logically impossible that there should be a being whose nonexistence is inconceivable then it seems a little silly to define "perfect knower" in such a way that the existence of a perfect knower would be logically impossible, when there is a plausible alternative definition which does not have this consequence.

It should not be overlooked that there is a certain limited positive result which we can take with us from our discussion of Hartshorne's argument about perfect knowing. Hartshorne has made it clear that there is at least one concept of God (in some suitably broad sense of "concept") which is a concept of a logically necessary being. It is a concept, moreover, which is not a merely arbitrary construction. Hartshorne begins with the fact that God is conceived of as a perfect knower. He offers us a conception of a perfect knower which can be formulated quite precisely, and from which it clearly follows that a perfect knower cannot have logically contingent existence. Hartshorne's conception of a perfect knower is recognizably a conception of a perfect knower. And including it in one's concept of God leaves one, I think, with what is recognizably a concept of God, and certainly a concept of a logically necessary being.

Some philosophers might be inclined to object that such a "concept" of God is not a legitimate or well-formed concept--either on the ground that the notion of a logically necessary being is self-contradictory, or for some other reason. With such a challenge we are not concerned here; whether the idea of a logically necessary being is self-contradictory, we shall consider in Part Three. What Hartshorne offers us is at least a "concept" of a perfect knower in the sense that he states a definition of "perfect knower" which is not obviously absurd, whether or not it might prove to be absurd on closer examination.

This positive result is certainly a very limited one. Hartshorne has not shown that his conception is the only tenable conception of a perfect knower, nor does it seem to be the only tenable conception. His argument, therefore, does not prove that there cannot be an adequate concept of God which is a concept of a logically contingent being. Neither does this argument of Hartshorne's give any reason, so far as I can see, for believing that the concept of God as perfect knower which is operative in any religious community is a concept of a logically necessary being.

CHAPTER SIX: PLANTINGA ON NECESSARY BEING

In spite of the inconclusiveness of the arguments which we have considered in Chapters Four and Five, one wants to say, "But surely the concept of God is the concept of a necessary being. It does not take a subtle argument to show us that it is a basic feature of the idea of God that He is conceived of as a being who _cannot_ not exist—whose nonexistence always was, and always will be, impossible." I think it is generally agreed that God must be conceived of as a being whose existence is in some sense necessary.

But it is far from universally agreed that God's existence must be conceived of as necessary in a sense of "necessary" which can be used in the modal argument for the existence of God. Some contemporary philosophers agree with Findlay that it is logically impossible for God's existence to be _logically_ necessary, but refuse to draw Findlay's conclusion that God's existence is impossible. They have tried to explain a different sense of "necessary" in which they maintain that God's existence is conceived to be necessary. They have sometimes expressed their position by saying that God's existence is conceived of as "factually necessary" rather than "logically necessary."[59]

If these philosophers are right, then the fact that God is conceived of as a necessary being does not support the first premise of the modal argument for the existence of God. For factual necessity does not provide an interpretation of "necessary" which is usable in the modal argument. But if their conception of God's existence as factually necessary could be proved inadequate, that would add considerably to the plausibility of the claim that God's existence must be conceived of as logically necessary. And logical necessity does constitute a sense of "necessary" which can be used in the modal argument.

In the first section of the present chapter the conception of God's existence as factually necessary will be explained. I believe Alvin Plantinga has given the conception its fullest development,[60] and we will treat him as the principal spokesman for those philosophers who believe that God is conceived of as a factually rather than a logically necessary being. I will also argue that "necessary" in the modal argument for the existence of God cannot be interpreted in terms of factual necessity. In the second section of the chapter we will consider three problems which might be made the basis of objections to the theory that the concept of God is the concept of a factually necessary being. The third section states the conclusion which I believe should be drawn from the discussions of this chapter, and shows how it contributes to the conclusion to be drawn from Part Two as a whole.

I

Philosophers who hold that God is conceived of as a factually necessary being generally point out that the concept of God has the following three features.

(1) God is conceived of as a being on whom everything else that exists depends causally for its existence.

(2) God is conceived of as a being who does not depend causally on anything else for His existence.

(3) God is conceived of as a being whose existence has no beginning or end in time.

And I think it is fairly clear that these three features really are part of the concept of God. According to Plantinga, propositions (1), (2), and (3) all express truths about the Christian concept of God.[61] As regards the first two points, for instance, he says "it is part of the Hebraic-Christian concept of God that" whatever else exists is causally dependent on Him.

> But it is also a necessary truth that if God exists, He is Himself uncreated and in no way causally dependent upon anything else. God is a causally necessary condition of the existence of anything else, whereas His existence has no necessary conditions.[62]

If I understand him, Plantinga holds that it is a logically contingent question whether there is any being which satisfies the concept of God, but it is a logically necessary truth that if any individual x, is God, then (1) there are true causal laws from which it follows that the existence of anything else depends on x, and (2) there are no true causal laws from which a necessary condition of x's existence, or a sufficient condition of x's nonexistence, can be derived.

Plantinga adds a fourth point about the concept of God, which is subtle but very important. God is conceived of as a being whose existence is completely dependable. It is not just a matter of fact that He will never cease to exist. There must be something about Him which guarantees that He never will cease to exist. Plantinga explains the religious importance of this point as follows.

> For the believer, God is the being in whom absolute trust may be placed; He is an invincible and utterly reliable ally.... Earthly parents are sometimes thwarted in their efforts, and as the child discovers to his dismay, parents are subject to death.

> But God differs from any earthly parent in just this respect; nothing can thwart His purposes, and the threat of nonexistence does not confront Him.[63]

God is conceived of as a being who can be relied on completely. Hence His existence must be conceived of as guaranteed; there must be absolutely no chance of His ceasing to exist. Plantinga concludes that the believer must hold that "God exists in some necessary manner." God not only will not cease to exist; "He cannot cease to exist."[64]

The guarantee that is demanded is a strong one. For instance it will not be adequate to say that God "cannot cease to exist" in the following sense. It is (as we have observed) an analytic truth that God never ceases to exist, in the sense that any being which ceases to exist thereby fails to qualify as God. We can therefore say, "It is necessary that, for every *x*, if *x* is God then *x* never ceases to exist." But this is not a guarantee. It tells the believer only that *either* the being to whom he prays will never cease to exist, *or* the being to whom he prays is not (and never was) properly called "God."[65] This is cold comfort for the believer. The guarantee he demands must state unconditionally that there is no chance that the being to whom he prays will (under any description) cease to exist.

Such a guarantee could be provided on the supposition that God is a logically necessary being. For suppose the being to whom one prays is an *x* such that it is logically necessary that *x* exists and is God. In that case the being to whom one prays is an individual who *cannot* cease to exist, in the sense that it is logically impossible that there should be any future time at which He does not exist. Thus His existence is completely dependable.

But Plantinga cannot account for the dependability of God's existence in this way because he does not conceive of God as a logically necessary being. Plantinga's solution of the problem is to say that God is conceived of as a being whose ceasing to exist is _causally_ impossible. He believes that this provides a strong enough sense of "cannot" in which it can be said that if there is a God, He is an individual who _cannot_ cease to exist.

Plantinga's derivation of the claim that God is conceived of as a being whose ceasing to exist is causally impossible is open to question. He argues that if God exists and if His "non-existence has no causally sufficient conditions," then "His going out of existence could have no causally sufficient conditions and is therefore causally impossible."[66] This argument seems to depend on the assumption that the occurrence of an uncaused event, an event for which there are no causally sufficient conditions, is causally impossible. I think that is a doubtful assumption. At least Plantinga ought to give some justification for it, and he does not. But the derivation is of small importance anyway. Even if the claim that God is conceived of as a being whose ceasing to exist is causally impossible does not follow from the fact that He is conceived of as a causally independent being, Plantinga could still argue that God is best conceived of as a being whose going out of existence is causally impossible. He could argue, with some plausibility, that this is the most satisfactory way of conceiving of God's existence as completely dependable, if we assume it is not logically necessary that God exists.

Adding Plantinga's thesis about the causal impossibility of God's ceasing to exist, we now have four propositions which I will take to be implied by the proposition that God is conceived of as a being whose existence is factually necessary.[67]

(1) God is conceived of as a being on whom everything else that exists depends causally for its existence.

(2) God is conceived of as a being who does not depend causally on anything else for His existence.

(3) God is conceived of as a being whose existence has no beginning or end in time.

(4) God is conceived of as a being whose ceasing to exist is causally impossible.

These four propositions do seem to present a conception of God as a necessary being—a being whose nonexistence is impossible. If such a God exists at all, it always was, is, and always will be a fact that He exists; and it never has been, is not, and never will be possible for anything to cause Him not to exist, or for Him to cease to exist without cause. God's existence is always unpreventable, inevitable, and in that sense necessary, because it is causally impossible for Him to cease to exist.

It should be clear, however, that "factually necessary" does not represent a sense of "necessary" which can be used in the modal argument for the existence of God. To begin with, the concept of factual necessity has been defined only for the existence of a thing; "it is factually necessary that" has not been defined as an operator on propositions in general. Perhaps we could interpret "It is factually necessary that p" as meaning "It has always been the case that p, and it is causally impossible that it will ever cease to be the case that p." "It is factually possible that p" would then mean "It has at some time been the case that p, or it is causally possible that it will at some time be the case that p." On that basis, "It is factually necessary that p" would be unusable as an interpretation of "Np" in the modal argument for the existence of

God. It is partly an interpretation in terms of time, and is unusable for the same reason that the temporal interpretations discussed in Chapter Three, section I, are unusable--namely, that "It is possible that God exists" is no more plausible than "God exists" under this interpretation. No one who denies that God exists is likely to agree that either God has existed at some time or it is causally possible that He will exist at some future time. For almost everyone agrees that God could not (logically) exist at any time unless He exists at all times.

The modal argument for the existence of God requires a concept of God which is a concept of a necessary being, but not merely of a factually necessary being. It seems to require the concept of a God whose existence is logically necessary.

II

There are several serious problems about the conception of God's existence as factually necessary which Plantinga has not resolved in his essay on "Necessary Being." We will consider three of them here. Plantinga himself draws attention to the first two problems, but does not explore them.

(A) Plantinga says that his account "leaves unexplained such notions as 'dependence' and 'causally necessary condition' as applied to God."[68] These notions are of central importance for his conception of God as a necessary being. Of the four propositions I mentioned in section I as being essential to Plantinga's position three apply to God some causal notion--of dependence or independence, necessity or impossibility.

And not every conception of the nature of causality will meet the needs of Plantinga's concept of God. Consider the following simple version of one popular theory of the nature of causality. To say that the future occurrence of a certain event is causally impossible is to say that its nonoccurrence can be validly inferred from the conjunction of a true causal law and a true description of a present state of affairs. A true causal law is a true, logically contingent generalization, asserting that states of affairs of one certain type always have been and always will be followed by states of affairs of another certain type. To say, then, that God's ceasing to exist is causally impossible is to say that there is a true causal law which, together with a true description of a present state of affairs, implies that God will never cease to exist. And this true causal law is just a true, logically contingent generalization about what always has been and always will be the case. Its substance must be, in effect, that no individual which is just like God in all relevant respects has ever ceased to exist or ever will cease to exist. Since it is not supposed that any other individual was, is, or will be just like God in all relevant respects, it is hard to see what such a causal law would add to the claim that God never has ceased to exist and never will cease to exist.

But when Plantinga insists that God cannot cease to exist, and says that the "cannot" must be interpreted in terms of causal impossibility, surely he means to say more than that God will never cease to exist. The causal law by virtue of which he thinks God cannot cease to exist must be more than a true generalization to the effect that God never has ceased to exist and never will cease to exist.

I suspect that Plantinga might reply as follows. "When I say it is causally impossible for God to cease to exist, I am saying something more than that He will not cease to exist. My meaning is not to be understood in terms of a generalization to the effect that God has never ceased to exist and will never cease to exist. You will remember that I said God's ceasing to exist is impossible because there are no causally sufficient conditions for His going out of existence.[69] What I am claiming is (a) that there cannot be any uncaused events, and (b) that if any being is God there are no true causal laws from which sufficient conditions of His ceasing to exist can be deduced. I am also claiming (c) that it follows from (a) and (b) that if any being is God, His ceasing to exist is causally impossible.

"Now this is to claim more than that God never has ceased to exist and never will cease to exist. For it could be true of some being that it never has ceased to exist and in fact never will cease to exist, without its ceasing to exist being causally impossible. Suppose there is such a being--and call it 'Ajax.' Ajax has existed a very long time, and never has ceased to exist and never will cease to exist--in fact. But there are true causal laws from which it can be deduced that if events of a certain description ever occurred (as they in fact never will) Ajax would cease to exist. These laws are established by the way in which many other individuals of the same kind as Ajax have ceased to exist (and will cease to exist).

"When I say that God's ceasing to exist is causally impossible I am saying not only that (like our fictitious Ajax) He never will cease to exist, but also that (unlike Ajax) He has no sufficient conditions of His ceasing to exist which can be deduced from true causal laws. It is this latter fact which adds an additional guarantee to the claim that God will not cease to exist."

This defense which I have put in Plantinga's mouth depends on the principle that there cannot be any uncaused events. As I said above, he does seem to presuppose this principle, but he does not explicitly avow it, and does nothing to defend it. Moreover, if the truth of causal laws depends on what will happen as well as on what has happened it is not clear to me that the fact that there are no causally sufficient conditions for the ceasing to exist of the individual who is God, does not depend on the fact that He will not cease to exist. And if the former fact does depend on the latter fact, I do not see how it constitutes a guarantee of the latter. It seems doubtful whether Plantinga's position can be successfully defended along these lines.

This is not a problem which Plantinga can lightly brush aside. If he is to explain the necessity of God's existence in terms of the causal impossibility of His ceasing to exist, he must be able to give a satisfactory account of this causal impossibility in terms of some defensible theory of the nature of causality. This he has not done; and so long as it has not been done, his conception of necessary being remains problematic.

(B) Plantinga also says that fuller exploration of causal notions as applied to God "would lead to an interesting and difficult constellation of questions regarding...[among other things] divine omnipotence."[70] One problem about divine omnipotence which arises in connection with Plantinga's views is the following. Suppose there exists an _x_ such that _x_ is God. According to Plantinga, _x_'s ceasing to exist is not logically but causally impossible. Of course, if _x_ did cease to exist _x_ would not have been God; but that does not keep _x_'s ceasing to exist from being logically possible. But if _x_'s ceasing to exist is causally impossible, no being, including _x_, has the power to bring it about. So it seems that Plantinga must say that there is a logically possible event (_x_'s ceasing to exist) which _x_ does not have the power to bring about. But how can that be, if _x_ is God, and therefore omnipotent? If _x_'s ceasing to exist were _logically_ impossible, that would not constitute a limitation of his power; for it is generally agreed that it is not a limitation of God's power that he cannot do the logically impossible. But if it is logically possible, then it seems to be a limitation of _x_'s power if it is causally impossible for _x_ to cease to exist.

If Plantinga is to maintain his view that God's ceasing to exist is causally rather than logically impossible, I think he must modify the claim that God is omnipotent, somewhat as follows. He can still claim that God has unlimited power over creatures--that He is able to bring about any conceivable state of created things. Plantinga must deny, however, that God has unlimited power over Himself; there is at least one logically contingent fact about Him which is not subject to His voluntary control. That fact is His continued existence.

Plantinga's theory might be that the causal laws which govern the behavior of creatures are given by God, and subject to His will, but that there are also causal laws governing the divine nature, which are prior to God's will. These latter are not subject to God's voluntary control, and it is they which determine His endless existence and the unlimited scope of His power over creatures. This theory does not make God dependent on any other being; for the causal laws which are prior to His will are not conceived as imposed on Him by another being, but as part of His constitution, so to speak. The theory also seems to satisfy the demand that God be conceived as stable and dependable, without diminishing His control over other beings.

It is not clear to me whether something essential would be lost in such a modification of the conception of God's omnipotence. At any rate, if one will not accept some such modification, one must find another way than Plantinga's of accounting for the dependability of God's existence.

(C) In claiming that God is conceived of as a being whose ceasing to exist is causally impossible, Plantinga is saying that if X is God it is causally impossible for X to cease to exist. Presumably he does not hold that if X is God it is logically impossible for X to cease to exist. That is, if "X" is the proper name of God, "X will cease to exist" is not self-contradictory, but describes something causally impossible. But Plantinga holds that "God will cease to exist" is self-contradictory,[71] so that if X did cease to exist X would not have been God. Thus it seems that Plantinga must assume that if an individual is God it is still logically possible for that individual to exist and not be God.

This is an assumption which we discussed in Chapter Five, section I, in connection with Malcolm's argument; and as I said there, it strikes me as odd. I think it is a disadvantage of Plantinga's theory if he is committed to this assumption, but probably not an intolerable disadvantage. Plantinga could argue that he is not assuming that there is any real or material possibility, but only a bare conceptual possibility, of X's not being God, if X is in fact God. If X is God, that implies, on Plantinga's view, that X not only will not but cannot cease to exist, in the sense that X's ceasing to exist is causally impossible. This theory allows that it is still logically possible that X will cease to exist, in which case he would still have been X but would not have been God. Saying that X is God implies, however, that it is causally impossible that this logical possibility should be realized. So Plantinga can still claim that it is causally impossible for X not to be God.

III

The unresolved problems in Plantinga's conception of God as a necessary being involve some fundamental aspects of the concept of God. The issues raised cannot be dismissed as peripheral. I do not know whether Plantinga could arrive at a satisfactory resolution of these problems. At the present stage of our discussion it seems to me that the following assessment of Plantinga's position is warranted. If we agree with Plantinga that the idea that God's existence is logically necessary is absurd, we might regard the notion of factual necessity as offering the most promising approach to the concept of God as a necessary being. If, on the other hand, we should conclude that the idea of God's existence as logically necessary is not absurd but problematic, I am not sure that the idea of God's existence as factually necessary would appear less problematic.

I think we must come to a similar conclusion about the larger issue of whether Premise I of the modal argument for the existence of God is true. We have not seen any conclusive argument for Premise I; we have not seen any compelling reason to deny that something recognizable as Jewish or Christian theism could be made consistent with the supposition that God's existence is logically contingent. So if we should be persuaded that God's existence could not be logically necessary, it would be plausible to suppose that we ought not on that account to reject the concept of God as self-contradictory, but ought to conceive of God as a logically contingent being.

If, on the other hand, we could be assured that the idea that God's existence is logically necessary is not absurd, I think it would be rather plausible to say that God ought to be conceived of as a logically necessary being. For one thing, if God's logically necessary existence is possible, it might be one of His superiorities, as discussed in Chapter Four. Furthermore there are conceptual difficulties in the notion of God's existence as factually necessary, as we have seen in the present chapter; and we might avoid these difficulties by conceiving of God as a logically necessary being. In short, there would be significant advantages in conceiving of God's existence as logically necessary, if it is not absurd to conceive of it so.

PART THREE: THE SECOND PREMISE

INTRODUCTION TO PART THREE

The second premise of the modal argument for the existence of God is, "It is not a necessary truth that God does not exist" ("$\sim N \sim g$")--or "It is possible that God exists" ("Mg"). In order for the modal argument to be sound, this premise must be true not just for some concept of God, but for a concept of God for which the first premise of the argument is true. That is, it must be true for the concept of a logically necessary God. What we must consider in Part Three is not just whether it is possible that there exists a God, in some sense of the word "God," but whether it is possible that there exists a God whose existence is logically necessary. We will assume, therefore, despite the inconclusiveness of our investigations in Part Two, that we are dealing with a concept of God which is the concept of a logically necessary being.

"Necessary" and "possible" will be taken to signify logical or conceptual necessity and possibility. It will be assumed that System A is a valid system of modal propositional calculus, under the intended interpretation of the modal operators. It follows that since the first premise of the modal argument is being regarded as true, the first part of Modal Argument A must be regarded as sound. By "the first part" I mean the first seven steps, which conclude "$\sim Ng \supset N \sim g$"; if it is not necessary that God exists, then it is necessary that He does not exist. In effect, we shall be assuming in these chapters that either it is necessary that God exists or it is necessary that God does not exist. That assumption implies, of course, that either the nonexistence or the existence of God is impossible.

The range of considerations which might be relevant to the possibility or impossibility of there being a logically necessary God is unmanageably large, and our discussion will be restricted in two respects. (1) A number of philosophers have alleged that there are contradictions in the concept of God which would make His existence logically impossible whether or not it is conceived of as logically necessary. For instance, Robert Coburn alleges there is a contradiction between the property of timelessness which Malcolm and many others believe to be included in the concept of God, and the attributes of personality which are normally ascribed to God.[72] It would be impossible to discuss adequately here all the aspects of the concept of God which are involved in these alleged contradictions. We are interested primarily in the problems related to the idea of logically necessary existence as it is ascribed to God; therefore we will take it as a working hypothesis that the concept of God is in other respects consistent and intelligible.

(2) We will devote our attention primarily to lines of argument which have been developed interestingly in contemporary discussion of the question of the logically necessary existence of God. Kant, Hume, and Leibniz will be cited in the course of the discussion; but a comprehensive exposition and criticism of their views and arguments on the possibility of God's logically necessary existence is not attempted here.

Arguments against the possibility of anything existing of logical necessity will be criticized in Chapter Seven. Chapter Eight is devoted to arguments against the logically necessary existence of God, in particular. I think much of the contemporary appeal of the claim that the existence of God (conceived of as a logically necessary being) is possible has rested on the belief that the existence of such a being could be presumed possible unless proved impossible; this belief will be criticized in Chapter Nine. The critique of presumptive arguments will also prepare us to consider, in Chapter Ten, Norman Malcolm's argument for supposing that the concept of (a logically necessary) God is not self-contradictory. The inconclusiveness of all these arguments will lead us to consider, in Chapter Eleven, a conception of the nature of the question, whether it is possible for there to be a logically necessary God, which differs from the conception assumed in Chapters Seven to Ten.

In a brief conclusion I will try to draw together the principal findings of the whole dissertation.

CHAPTER SEVEN: CAN AFFIRMATIVE EXISTENTIAL PROPOSITIONS BE LOGICALLY NECESSARY?

Probably most philosophers who reject the assumption that it is possible for there to be a God whose existence is logically necessary reject it because they believe that no proposition asserting the existence of something can be logically necessary. This chapter is an attack on the arguments most commonly given in support of the dogma that no proposition asserting the existence of something can be logically necessary. I shall not try to prove that the dogma is false. That is, I shall not try to prove that some affirmative existential proposition is logically necessary. Rather, I shall attempt to show that the arguments commonly used to support the dogma are not cogent, and that the dogma is therefore not well enough established to be made the foundation of a proof that God's existence cannot be logically necessary.

I

Many, perhaps most, arguments against the possibility of logically necessary existence presuppose a certain theory of the relation between logical necessity and reality, which I shall introduce with a simile.

Imagine oneself a quality control officer in a shoe factory, inspecting the finished shoes as they come off the assembly line. Shoes are made to fit feet. Simply by examining a shoe, if one has a rudimentary knowledge of what feet are like, one can tell certain things about any foot that the shoe will fit. One can tell whether it is a left foot or a right foot. One can determine the widths of the heel and metatarsal arch, the curvature of the foot, its overall length and the comparative lengths of instep arch and toes. One hopes it does not happen, but it is conceivable that some shoes come off the assembly line so badly made that one knows just by looking at them that there is no foot they will fit. Perhaps there is not even an opening in the top of the shoe through which a foot could enter. On the other hand, there are several things a shoe cannot tell us about any foot it may fit. It cannot tell us whether the foot belongs to a bachelor or a married man, or whether there is a mosquito bite on the middle toe, for instance. And one other thing we cannot find out just by examining the shoe: we cannot in that way learn that there actually is a foot that this shoe will fit. In order to discover that, we must also examine feet, measure them to see if they match the specifications built into the shoe, and perhaps try the shoe on several feet until we find one that it fits.

This is just a simile, as I said before, and will not bear pressing hard at all points. But I think we may say that it is very common for philosophers to think of concepts as related to things in much the same way that shoes are related to feet. Shoes are made to fit feet--and concepts are concepts of things. If something really exists which a given concept is the concept of, we say that the thing "satisfies" the concept, and that the thing is an "instance" of the concept, and part or all of the "extension" of the concept. We say that a concept "is satisfied" or "instantiated," and that it "has extension," if and only if there really exists at least one thing of which it is the concept. In terms of this picture, the proposition, "There exists an F," is normally interpreted as asserting that the concept of F is satisfied.

By examining a shoe, and discovering the specifications that are built into it, we can learn some things, but not everything, about any foot that will fit it. Specifications are, so to speak, built into concepts too. There are certain requirements, certain conditions, which must be met by anything which is to satisfy a given concept. In order to be an instance of the concept, a thing must have certain properties which are the "defining properties" of the concept. Knowing what the defining properties are is the largest part of understanding the concept. Simply by understanding and considering the concept, therefore, it is possible to know some things, but not everything, about anything that will satisfy the concept. Just by our understanding the concept of a husband, for instance, we know that all husbands are married and male. But there are many things which the concept of a husband cannot tell us about any husband, such as whether he is old or young, right-handed or left-handed, rich or poor, and so forth. In terms of this picture, those things which consideration of concepts alone can tell us about whatever things may satisfy them, are logically necessary truths, those things which we cannot learn from concepts alone are not logically necessary.

Now we can see how this picture suggests that nonexistence can, but existence cannot, be logically necessary. A shoe may be so badly made that one can tell, just by looking at it, that there could not be a foot that it would fit. But a shoe could not be so well made that one can tell just by looking at it, that there is a foot that the shoe fits. To say that there is a foot that the shoe fits is to assert that the shoe is related in a certain way to something other than itself. The truth of such an assertion cannot be determined by examination of the shoe alone; one must have some other knowledge of the foot too.

Similarly, a concept can be so badly made that we can see, just by considering it, that nothing could possibly satisfy it. This is the case when a concept is self-contradictory, when it specifies incompatible defining properties for its instances. But there is no such thing as a concept being so "well made" that we can see, just by considering it, that it must be satisfied. As J.J.C. Smart observes, "whether or not a concept applies to something can not be seen from an examination of the concept itself."[73] To say that a concept is satisfied is to say that it is related in a certain way to something. It is to say that there exists something which meets the necessary conditions for being an instance of the concept. And in order to know that that is true, we must consider not only the concept but also the instance. And therefore, it is argued, it cannot be a logically necessary truth that such and such a concept is satisfied, since logically necessary truths are truths that can be known by consideration of concepts alone. It follows that if the proposition "There exists an F" is interpreted as asserting that the concept of F is satisfied, it cannot be logically necessary.

There is an obvious hole in this argument. The class of shoes and the class of feet are mutually exclusive; but it is not clear that the class of concepts and the class of things of which there are concepts are mutually exclusive. If there is a concept which satisfies itself (for instance, the concept "concept"), then it seems we might be able to tell, just by considering that concept, that it is instantiated. And if there are concepts of properties of concepts, and of relations between concepts, presumably we can see that some of those concepts are satisfied, without considering anything but concepts. This is perhaps not such a serious objection for our present purposes, however, because we are primarily interested in concepts of intelligent beings, such as the concept of God. And such concepts clearly are not instances of themselves, and are not satisfied by other concepts or by properties and relations of concepts.

I shall now try to show that the line of thinking that I have just been presenting is not a fantasy of my own, but actually underlies arguments very commonly given for the contingency of all assertions of existence. Many of these arguments turn on the claim that existence is not a predicate, or not a property. This claim (that existence is not a predicate) is sometimes used, in criticisms of ontological arguments, to attack the premise that existence is a perfection. But it is also used to support the general contention that assertions of existence cannot be logically necessary. If existence is not a property at all, it cannot be a defining property. To say "F's exist" is to say that the concept of F is satisfied; the verb "exist" does not signify any property that is, or could be, built into the concept of F--just as the existence of a foot that it fits is not a feature that can be built into a shoe. It is concluded that since existence cannot be built into a concept, propositions such as "F's exist" cannot be logically necessary or "analytic."

Kant makes such a use of his doctrine that "'Being' is...not a real predicate."[74] He means that existence is not a feature which could be included in the concept of a thing. He concludes,

> Whatever, therefore, and however much our concept of an object may contain, we must go outside it, if we are to ascribe existence to the object.[75]

And he sees no other way in which we can "go outside" our concepts to obtain knowledge of existence, than by experience.

Similar reasoning is employed by contemporary philosophers in criticizing ontological arguments. R. E. Allen argues that existence is not a predicate, and "only predicates are analytically contained in or implied by concepts..."[76] The picture could hardly be expressed more clearly than it is by Paul Edwards when he writes,

> To say that there is a necessary being is to say that it would be a self-contradiction to deny its existence. This would mean that at least one existential statement is a necessary truth; and this in turn presupposes that in at least one case existence is contained in a concept. But only a characteristic can be contained in a concept and it has seemed plain to most philosophers since Kant that existence is not a characteristic, that it can hence never be contained in a concept, and that hence no existential statement can ever be a necessary truth.[77]

The same conception of the nature of logical necessity seems to be presupposed by John Hick when he reasons as follows.

> ...the correct analysis of '_a_ exists' is that the concept of _a_ is instantiated; and the role of the word 'exists' is to register this assertion. Such an analysis implies that existence cannot properly be included among the defining properties of _a_... Thus...the notion of logically necessary existence is not admissable...[78]

Terence Penelhum presumably relies on similar presuppositions when he argues that

> existence cannot be held to be a quality which a perfect being would have to have, since it is not a quality at all. So it further follows that no existential assertion _can_ be analytic.[79]

I ought not to give the impression that I am concerned here only with arguments that turn on the doctrine that existence is not a predicate, property, or quality. There are other arguments, reflecting the shoe-fitting picture of the relation of logical necessity to reality, which are used to establish the non-necessity of all assertions of existence. Jerome Shaffer argues that "exists" may be regarded in some contexts as a predicate, and even as a defining predicate. If we say "Historical persons have at some time existed" (as opposed, say, to fictitious characters, who have never existed), this predication of existence is tautological.[80] But being tautological, Shaffer argues, such a predication of existence can never tell us whether there have actually been any historical persons or not. A tautological predication of existence can tell us only that anything which satisfies a certain concept must be an existent and not, say, a fictitious, or imaginary thing. It cannot tell us that the concept really is satisfied; or, in Shaffer's terminology, it cannot tell us that the concept "has extension."

> Why is it that extensional assertions cannot be tautological? Because they do not merely tell us what the requirements are for being an A but, starting with these requirements, tell us whether anything meets these requirements.[81]

The crucial assumption here is that an analytic proposition can tell us only what the requirements are for satisfying a certain concept. This is an obvious expression of the shoe-fitting picture of the relation of logical necessity to reality.

It would be unfair to suggest that any of the contemporary philosophers quoted here has supposed that the only way in which logically necessary truths can be derived is by analysis of the defining properties which a thing must have in order to satisfy a concept. Doubtless they would also grant that propositions provable in certain systems of formal logic are logically necessary. This would be true of the theorems of the classical propositional calculus. Theorems of the predicate calculus would also be accepted as logically necessary; but to avoid begging any questions we would have to restrict ourselves to a system of predicate calculus valid in empty as well as non-empty domains. These formal systems do not contain any affirmative existential propositions as theorems, however. The philosophers whose arguments I have cited presumably hold that the only way in which conceptual analysis can yield logically necessary propositions, additional to the theorems of these formal systems, is by analysis of the defining properties which a thing must have in order to satisfy a concept. So they may still argue that if existence is not a defining property, affirmative existential propositions cannot be logically necessary.

In fact, the methods of the predicate calculus can be used to state an argument of the type we have been discussing. Suppose the concept of F is analyzable into the defining properties, or defining predicates, $G_1, G_2, \ldots G_n$. This analysis can be expressed in the form:

$$P:\ (x)(Fx \supset (G_1x \ \& \ G_2x \ \& \ \ldots G_nx))$$

P is equivalent to the negative existential formula

$$Q:\ \sim(\exists x)(Fx \ \& \ \sim(G_1x \ \& \ G_2x \ \& \ \ldots \ G_nx))$$

And from P it is easy to derive other negative existential formulas, such as "$\sim(\exists x)(Fx \ \& \sim G_1x)$," which is equivalent to "$(x)(Fx \supset G_1x)$." We may even be able to derive "$\sim(\exists x)(Fx)$"; that will be the case if the concept of an F is a self-contradictory concept, containing contradictory predicates G_j and not-G_j. For then we will have "$(x)(Fx \supset (G_jx \ \& \sim G_jx))$," which entails "$(x)(\sim Fx)$" or "$\sim(\exists x)(Fx)$." But since we are restricting ourselves to a system of predicate calculus valid in empty as well as non-empty domains, no affirmative existential propositions can be derived from P.

This argument shows that no affirmative existential proposition can be logically necessary, provided that the class of logically necessary truths includes only the following: (1) analyses of concepts into defining properties, expressible in the form P; (2) theorems of the classical propositional calculus and of a predicate calculus valid in empty as well as non-empty domains; and (3) propositions derivable in those calculi from analyses expressible in the form P. The assumption that the class of logically necessary truths is restricted in just this way may be regarded as the formal expression of the theory of necessary truth which we have been considering.

II

I do not see why we should be obliged to make such an assumption, however. Perhaps a defender of the assumption will claim that he simply has not found any logically necessary truth which could not be put in one of those forms. That is a respectable reason for making such an assumption in some circumstances. But it is not good enough to support the thesis it is supposed to sustain--namely the thesis that all arguments for the logical necessity of an affirmative existential proposition are refuted before they start just because they are arguments for logically necessary existence. The claim that one "has not found" any way in which an affirmative existential proposition could be logically necessary, is a claim one may be entitled to make after one has refuted all the arguments which purport to show that some affirmative existential proposition is logically necessary; but it is not a claim one can reasonably use as a premise in refuting them.

But perhaps a more ambitious claim is being made. Perhaps it is being asserted that it is part of the meaning of "logically necessary" that the class of logically necessary propositions, as suggested in section I, includes only theorems of certain formal systems, and propositions derivable in those systems from definitions expressible in the form "$(x)(Fx \supset (G_1x \ \& \ G_2x \ \& \ \ldots G_nx))$." To this suggestion I reply that there are at least two conceptions of the meaning of "logically necessary," widely accepted by philosophers, from which it does not seem to follow that the class of logically necessary truths is restricted in this way. These are the conceptions of logically necessary truth as truth by virtue of the meanings of words, and as truth about all possible worlds.

(A) Malcolm quotes Findlay as suggesting the view that logical necessity "merely reflects our use of words," and says that he is inclined to accept the view.[82] But he protests against the claim that it follows from this conception of logical necessity that no affirmative existential proposition can be logically necessary.

> The correct reply is that the view that logical necessity merely reflects the use of words cannot possibly have the implication that every existential proposition must be contingent. That view requires us to look at the use of words and not manufacture a priori theses about it.[83]

And if we look at "those complex systems of thought, those 'language games,'" which are involved in the practice of "the Jewish and Christian religions," we find that in them, "God has the status of a necessary being."

> Here we must say with Wittgenstein, "This language-game is played!" I believe we may rightly take the existence of those religious systems of thought in which God figures as a necessary being to be a disproof of the dogma...that no existential proposition can be necessary.[84]

I take it that what Malcolm is saying is that there are language-games, or systems of thought and of linguistic and nonlinguistic behavior, in which the concept of God as a logically necessary being occurs; and that in these language-games there are linguistic rules according to which, under every possible circumstance, "God exists" would express a truth and "There is no God" would express a falsehood. If it is the case that _p_, then it is correct to say, "God knows that _p_" and "God caused or permitted it to be the case that _p_," and so forth. If it is conceivable that not-_p_ then it is right to say, "God would know if not-_p_ were the case," and so forth. The rules of the language-game do not provide for any state of affairs in or about which it would be right to assert "There is no God." "God exists" is then logically necessary because it is true simply by virtue of the rules of the language-game.

Whether there is such a language-game, and if so, what attitude religious and nonreligious people ought to take toward it, are not matters for consideration here. They are discussed, in some measure, in Part Two and especially in Chapter Eleven. The point that I want to make here is that I do not see that it follows from the _meaning_ of "linguistic rule" or of "logically necessary" that there could not be such linguistic rules and that "God exists" (or some other affirmative existential proposition) could not be logically necessary by virtue of them. The line of thought presented in section I implicitly assumes that all we can tell by considering concepts alone is what specifications a thing must meet in order to satisfy a certain concept. In terms of rules and norms of language, this amounts to the assumption that meaning rules can only tell us what specifications a thing must meet if some _predicate_ is to be correctly ascribed to it. That assumption is surely wrong. There is enormous variety in the rules and norms of language, as Wittgenstein made clear.

There are rules and understandings about what counts as evidence for a proposition of a certain type, or what I commit myself to in saying "I know that..."; and rules governing the relationships of speech to gestures such as pointing; and rules that give rise to differences between what it makes sense for me to say about myself, and what it makes sense for others to say about me--and so forth. If anyone claims that in all this variety there could not be rules and norms of language such that some affirmative existential proposition would be true simply by virtue of them, the burden of proof surely rests on him to demonstrate that this is so.

(B) I think the second most prominent way of interpreting the meaning of "logically necessary" is that according to which a proposition is logically necessary if and only if it is true in all possible worlds, or about every consistently conceivable total states of affairs. I believe we will find that this manner of conceiving logical necessity is not favorable to the claim that it follows from the meaning of "logically necessary" that the class of logically necessary truths is restricted in the way suggested at the end of section I.

The idea of interpreting logical modalities in terms of possible worlds is of Leibnizian inspiration and has been found useful by many modal logicians. It supplies a flexible, intuitively plausible framework for the interpretation of modal terms, which seems to have proved fruitful in the development of systems and theories of modal logic. We have already reviewed informally, in Chapter Three, some of the interesting results obtained by Saul Kripke with some interpretations of modal logic which are of the possible worlds type. Kripke is not the only contemporary logician who has used this type of interpretation; it has been used by others such as Jaakko Hintikka[85] and David Lewis;[86] and a good deal of lively discussion is going on which is based on it.

We will not be concerned here with the more advanced refinements of the idea, but only with the following basic features which are common to most interpretations of modality in terms of possible worlds. There is a plurality of possible worlds, of which the actual world is one. Every proposition is, or purports to be, a partial description of a possible world or kind of world; the proposition "Some cats are black," for instance, is a partial description of all those possible worlds in which there are black cats. A proposition is true about a world if and only if it correctly describes it; a proposition is simply true if and only if it is true about the actual world. We say that a proposition is logically necessary if and only if it is true about all possible worlds. It follows that any intelligible proposition is logically necessary if and only if its contradictory is true about no possible world, and only if there is no consistently conceivable world, or state of affairs, of which it (the contradictory) would be a true partial description. In other words, an intelligible proposition is logically necessary just in case its contradictory fails to describe any consistently conceivable state of affairs.

I will state my point pictorially at first, so as to provide a contrast with the viewpoint discussed in section I. The idea of possible worlds suggests a somewhat different application of the simile of shoe-fitting. Concepts, we may say, are made to fit things, or objects. But we may also say that propositions are made to fit states of affairs, or possible worlds. If a proposition of the form "There is no F" is logically necessary, we may say it is necessary because the concept of an F is "so badly made" that there could not be any individual that it fits.

Alternatively we could say that the proposition "There is an F" is "so badly made" that it fails to describe any consistently conceivable state of affairs. The proposition "There is no unmarried husband" is logically necessary, for example. We may say that this is because the concept of an unmarried husband is self-contradictory and could not be satisfied by anything. We may also say it is because the proposition "There is an unmarried husband" is self-contradictory and is not true about any possible world.

But suppose it is claimed that a proposition of the form "There is an F" is logically necessary. Obviously this claim could not be explained by saying that the concept of an F is so badly made that it could not fit anything; for what is claimed is that there must be something that it fits. But why couldn't it be that "There is an F" is logically necessary because its contradictory, the proposition "There is no F" is so badly made that there could not be a world that it fits? After all, in order for "There is an F" to be false about any world, "There is no F" must be true about that world. For instance, if "There is a unicorn" is false about any world, it must be a world which is correctly described (in part) by the proposition "There is no unicorn." So if there is no possible world, no conceivable state of affairs, of which "There is no F" is a correct partial description, "There is an F" cannot be false about any possible world, and is logically necessary. As long as we were thinking only in terms of the relation between things and concepts of things, it seemed as if there was no way of expressing what a logically necessary affirmative existential proposition would be. But in terms of the relation between possible worlds and propositions, we can say that a logically necessary affirmative existential proposition (like any other logically necessary proposition) would be a proposition which was true about all logically possible worlds and whose contradictory failed to describe any possible kind of world.

Perhaps an objector would claim that it is part of the meaning of "possible world" that the only propositions which are true about all possible worlds are theorems of propositional calculus and predicate calculi valid in empty domains, and propositions deducible in such calculi from definitions of the form "$(x)(Fx \supset (G_1x \;\&\; G_2x \;\&\; \ldots\; G_nx))$." It would follow that *every* proposition, including negative existential propositions, whose contradictory does not belong to one of those favored classes *must* be a correct partial description of some possible world. This is a large assumption, and one ought to have solid justification for building it into the meaning of "possible world."

Of course if one is defining the notion of a "possible world" for technical purposes in the development of a formal system of modal logic, one might have a practical justification, of convenience, for building such an assumption into the meaning of "possible world." But we are not discussing whether there is some technical sense of "possible world" in which every negative existential proposition counts (by definition) as a correct description of some possible world. The suggestion we are considering, if it is really to provide us with a proof that the logically necessary existence of God is not possible, must be that in *any* plausible sense of "logically possible world" it is part of the meaning of that term that every negative existential proposition is a correct partial description of some logically possible world. In order to sustain such a claim, I think one would have to show that there is no plausible sense of "conceivable" in which all total states of affairs might have to include a certain being, or a certain kind of being, in order to be conceivable.

I think it would be very difficult to show this. The major arguments for the logically necessary existence of God purport to show that, on the contrary, every total state of affairs must include a God in order to be consistently conceivable. How would one show that such arguments cannot be right, or cannot be using an acceptable sense of "conceivable," unless one had refuted them one by one?

The point I am making here is substantially the same as Malcolm's point about language-games. Just as there is great variety of linguistic rules which might be part of a language-game, so also there is great variety of considerations which might bear on the conceivability of a world, or total state of affairs. And just as the burden of proof rests on anyone who claims that linguistic rules could not be such as to make the existence of something logically necessary, so also the burden of proof rests on anyone who claims that for every negative existential proposition there is a possible world, a conceivable total state of affairs, about which it is true.

III

It may be worthwhile to engage in a somewhat more extended discussion of the conceivability of states of affairs, or possible worlds—and particularly of states of affairs in which things do not exist. Some philosophers have believed that quite apart from considerations about the form of affirmative and negative existential propositions, if we think about the things that are said to exist, it is obvious that we can conceive a state of affairs in which any one of them does not exist. We will consider three different attempts to justify this conviction; and I will argue that none of them is convincing. The first two arguments are drawn from the writings of David Hume, who is often appealed to as the outstanding proponent of the view that the nonexistence of anything is conceivable.

(A) In Part II of Hume's Dialogues Concerning Natural Religion Demea introduces a cosmological argument which turns on the concept of God as "a necessarily existent Being...who cannot be supposed not to exist without an express contradiction." Cleanthes criticizes the argument sharply, and his very first objection is that the term "necessary existence" has no consistent meaning.[87]

> Nothing, that is distinctly conceivable, implies a contradiction. Whatever we conceive as existent, we can also conceive as non-existent. There is no Being, therefore, whose non-existence implies a contradiction.[88]

How does Cleanthes know that "whatever we conceive as existent, we can also conceive as non-existent"? He surely has not considered separately everything that can be conceived to exist, in order to find that it can also be conceived not to exist. In particular, has he distinctly conceived God as nonexistent? The closest Cleanthes comes to answering these questions is in the following passage.

> "Any particle of matter," it is said, "may be conceived to be annihilated; and any form may be conceived to be altered. Such an annihilation or alteration, therefore, is not impossible." But it seems a great partiality not to perceive, that the same argument extends to the Deity, so far as we have any conception of him; and that the mind can at least imagine him to be non-existent, or his attributes to be altered.[89]

The word "imagine" in the last sentence is not used carelessly; it was substituted by Hume for "conceive," which he had written at first.[90]

I think we must take it seriously as a hint of what Hume has in mind here. If we think of visual imagination as furnishing the paradigms of conceiving of the existence and nonexistence of things, there may be some plausibility to the claim that whatever can be conceived to exist can also be conceived not to exist. Suppose I conceive of the existence of a "particle of matter" by imagining a bread crumb on a white tablecloth. It seems plausible to say that I can conceive of the nonexistence of that particle of matter by imagining the crumb vanishing before my eyes and the tablecloth remaining without the bread crumb.

I think this is not yet an adequate account of what it is to conceive of the nonexistence of a bread crumb, much less of God. If by "conceiving of the existence of God" we meant imagining an old man seated on a very large throne, even then it is doubtful that we could conceive of His nonexistence by imagining the old man vanishing before our eyes and the throne remaining with no one sitting on it. (Perhaps the old man still exists but has become invisible.) But of course it would be a gross misunderstanding to suppose that that is what is meant by "conceiving of the existence of God," or that His nonexistence can be conceived of in that way. It is part of the concept of God that we cannot form a visual image of Him, or otherwise imagine Him as an object of our senses. Perhaps Hume would say, "Then how do you conceive of the existence of God?" That is indeed a serious question, especially if one were to adopt Hume's theory of what it is to conceive of something. For Hume equates conception with imagination.

God is normally conceived of as in some sense a mind or person. According to Hume, a person is "nothing but a bundle or collection of different perceptions."[91] So perhaps Hume would say that God's existence must be conceived of by imagining a collection of perceptions which might be God's perceptions. But then how would we conceive of God's nonexistence? By imagining a total absence of perceptions? I do not understand what it would be to imagine that. Perhaps Hume would appeal here to the imaginability of a transition from existence to nonexistence. He imagines a number of perceptions, which he regards as belonging together in a "bundle" and as representing, say, the mind of God. Then he imagines those perceptions fading out, and he does not imagine any perceptions after them which he regards as belonging to the same bundle. In this way he claims to be able to imagine the ceasing to exist of any mind which he can conceive at all.

Exactly what has Hume proved by this exercise in imagination? (a) He has assuredly proved to himself that such perceptions as he has imagined are possible; for he has actually had such perceptions (in Hume's sense of "perception") in imagining them, and what is actual is possible. (b) In the same way, and on the same grounds, he has proved to himself that it is possible for such perceptions to "fade out." (c) He has proved that he can (rightly or wrongly) regard a set of such perceptions as representing a mind. (d) He has also proved that he can regard the fading out of such perceptions as representing the ceasing to exist of a mind. (e) And he has proved that a state of his mind is possible which he regards as representing the nonexistence of God because he is not having any perceptions which he regards as representing God's perceptions.

But so far as I can see, he has not proved (c′) that the existence of God, or of any other mind constituted of such perceptions as he imagined, is in any philosophically interesting sense possible. Nor has he proved (d′) that it is possible for such a mind to cease to exist, or (e′) that the nonexistence of God, or any other mind, is possible. For from the fact that he can regard his perceptions as representing such and such a state of affairs, it does not follow that that state of affairs is possible. The possibility claims expressed in (c′), (d′), and (e′) may indeed have considerable initial plausibility, but Hume's exercise in imagination has not proved that they are true.

I would not want to deny that imagination can provide solid grounds for affirming the conceptual possibility of that which is imagined, in certain cases. Specifically, it is plausible to suppose that imagination provides such grounds for an affirmation of possibility in cases in which not much more is asserted in the proposition whose truth is to be shown possible than in a description of the images occurring in the imagination experience. Thus, I suppose that the fact that I can imagine a triangular red patch beside a square blue patch is sufficient grounds for me to assert the possibility of a triangular red patch and a square blue patch appearing to me side by side. But when a good deal more is asserted in a proposition than would be asserted in a description of the images occurring in any imagination experience, then the fact that I can in some sense "imagine" what it would be like for the proposition to be true does not by any means show that the truth of the proposition is possible. For instance, I can imagine traveling back to the sixteenth century in a time machine. I can imagine getting into something that looks like a space capsule in front of a sixteenth century building in Europe. I can imagine peering through the windows at scenes that look like a motion picture run backwards, faster and faster until the scene reduces to a blur (as the machine's speedometer shows a reverse time-speed of 24.73 centuries per hour), then slowing down until the motion outside the windows seems to stop and finally begins to look like a motion picture run forwards again. I can imagine stepping out of the machine into the indescribable stench of a sixteenth century city, seeing people dressed in the style of the sixteenth century, hearing them speak in a dialect which I had never heard and could not understand, and so forth. The fact that I can imagine these things proves, perhaps, that it would be logically possible for me to have experiences which would seem to me like those which I have imagined; but it surely does not prove that it would be logically possible for me to travel to the sixteenth century, because it does not prove that any such experiences could (logically) count as really traveling backwards in time to the sixteenth century. Neither the fact that I can have such experiences in imagination, nor the fact that I can regard them as representing time travel, proves that time travel is possible. (I am not expressing an opinion here on the question whether travel backwards in time is logically possible; I am just pointing out that the fact that such time travel can be imagined in the way I have described does not prove that it is logically possible.)

Now it seems to me that propositions in which the nonexistence of something is asserted are commonly propositions in which much more is asserted than would be asserted in a description of the images occurring in any imagination experience; certainly that is so in the case of the proposition "There is no God." That there does not exist anything at all of a certain description, is normally not something which can be so completely or adequately represented by any set of pictures or mental images that the existence of such pictures or images suffices to prove the logical possibility of the nonexistence that they are supposed to represent. Hume's appeal to imagination, therefore, does not provide, as he claims it does, an argument which shows that God's nonexistence cannot be impossible.

(B) There is a very important passage of Hume's Treatise of Human

Nature, in which he argues that if "substance" is defined as "something which may exist by itself," then it is perceptions which are substances. This passage can also be developed into an argument against the concept of a necessary being which at least appears to be different from the argument of the Dialogues. I think it is interesting to observe the connection between Hume's rejection of the concept of a necessary being and his belief in the conceptual independence of perceptions.

> For thus I reason. Whatever is clearly conceiv'd may exist; and whatever is clearly conceiv'd after any manner, may exist after that same manner. This is one principle, which has been already acknowledg'd. Again, every thing, which is different, is distinguishable, and every thing which is distinguishable, is separable by the imagination. This is another principle. My conclusion from both is that since all our perceptions are different from each other, and from every thing else in the universe, they are also distinct and separable, and may be consider'd as separately existent, and may exist separately, and have no need of any thing else to support their existence.[92]

If we accept Hume's conclusion it would follow that there could not be a necessary being. For Hume's conclusion is that each of many different perceptions that we have "may exist separately"--meaning that it could possibly be the only thing in the universe. But if there are several different things, each of which could possibly be the only thing in the universe, it follows that there is no one thing whose existence is necessary. Let us note that if this is Hume's thesis it does not imply that no proposition asserting the existence of something can be logically necessary. For all Hume has said in this passage, it may be logically necessary that there exists at least one perception. What Hume's conclusion does imply is that there is no one thing, and no one kind of perception, whose existence is logically necessary.

The two principles on which Hume bases his conclusion may be restated as follows. (1) If *x* is clearly conceived (i.e., imagined) as existing in a certain manner, it is possible for *x* to exist in that manner. (2) If *x* is clearly conceivable, and different from *y*, then *x* can be imagined separately from *y*--i.e., *x* can be imagined without imagining *y*. In order to get from these principles to his conclusion that each of our perceptions "may be consider'd as separately existent, and may exist separately," Hume needs two further assumptions, both of which seem very questionable to me.

(a) He must assume not only that *x* can be imagined without imagining *y*, if *x* is clearly conceivable, but also that *x* can be imagined without imagining anything at all that is different from *x*, if *x* is clearly conceivable. But suppose *x* is a triangular patch of red. No doubt I can imagine *x* without imagining a green background, or without imagining a black background. But can I imagine *x* without imagining any background at all? I doubt that very much. Or suppose *x* is a twinge of pain. I can certainly imagine *x* without also imagining that I am hearing a tune. But can I imagine *x* without imagining anything else at all? It is not at all clear to me that I can.

(b) Hume must assume that to imagine *x* without imagining *y* is to imagine (and thus "clearly conceive") *x* as existing while *y* does not exist. Unless Hume makes this assumption, the claim that different perceptions can be imagined separately does nothing to show that each perception could possibly exist without anything else existing. But the assumption is clearly mistaken. If I imagine a trip to Africa and neglect to imagine any giraffes, am I imagining that giraffes do not exist or that Africa exists while giraffes do not exist? No; surely I am not. I am just not imagining any giraffes, which is not at all the same as imagining that there are none. In a similar vein, there may be some temptation to claim that one can conceive a world in which God would not exist, by just imagining one's physical surroundings and not imagining anything else. The reply is the same: to imagine several other things without imagining x is not to imagine (let alone clearly conceive) the nonexistence of x.

I conclude that this Humean argument is as unsuccessful as the other, and that Hume has not given compelling reasons for rejecting the concept of a necessary being.

(C) I think some philosophers would maintain that a state of affairs is conceivable in which nothing at all would ever exist. If they are right, of course, there are no affirmative existential propositions which are logically necessary. But it is by no means evident that they are right. For it is not at all clear what it is we are told that we (or somebody) can conceive, when we are told that such a state of affairs is conceivable.

An image rises before my mind, an image of the blackness of empty space. Perhaps it will be suggested that the idea of empty space gives content to the notion of a possible world in which nothing would ever exist. But I doubt that a world in which there was empty space could really be a world in which nothing at all would ever exist. I can think of three views, or three types of views, which a philosopher might take of the nature of space. (1) He might hold that space is a logical construct out of the relationships of bodies, so that there could not be space if there were no bodies at all. It would not be consistent with this view to suppose that there would be empty space in a world, or a state of affairs, in which nothing at all existed. (2) The Kantian conception of space, as a form or order of the mind's way of perceiving sensible things, would not permit us to suppose that there could be space if nothing at all existed. For on the Kantian view there is space only insofar as things appear to some percipient being in a certain way.[93] (3) Some philosophers may reject the two previous views, and insist that space exists as a sort of receptacle or container, with geometrical properties, and perhaps with points having their own identities, independently of its containing any bodies or being perceived by any observer. But if such a theory were accepted, I do not see why we should not say that space is something which exists, in its own right. And thus, again, a world in which there was space would not be a world in which nothing at all existed. So I do not see how the notion of empty space is supposed to give content to the idea of a world in which nothing at all would ever exist.

Let us consider one other attempt to give content to this idea. It might be suggested that we can conceive that before ten billion years ago, nothing at all existed. Then it might be argued that if we can conceive that nothing at all existed before ten billion years ago, we can also conceive that that state had continued for ever, and nothing at all had ever existed. I believe this argument is mistaken, however.

I can think of two interpretations of the claim that we can conceive that nothing at all existed before ten billion years ago. (1) It might mean that there was a time before anything at all existed. Then it would be argued that we can conceive an infinity of time similar to that time in which nothing existed. But I doubt very much that we can conceive a world in which there is time but nothing at all ever exists. For our options with respect to the analysis of the notion of time are very similar to our options with respect to the analysis of the notion of space.

We might suppose that time is constructed out of relationships of changes of existing things, or that it is a form or order of the mind's way of perceiving things, or we might suppose that time exists in its own right, independently of anything happening in it or anyone experiencing it. Under any of these analyses, it does not seem that there could be time in a world in which nothing at all _ever_ existed.

(2) Alternatively, the supposition that nothing at all existed before ten billion years ago might not mean that there was _a time_ before anything existed; it might mean only that we can conceive that ten billion years ago there was a _first_ event, and a _first_ state of existing things, and that no state of affairs at all preceded that one. But now we are not being told of any state of affairs which preceded the existence of things; and if we are not conceiving such a state of affairs, we cannot expand it in thought (so to speak) to fill a whole possible world with it. The fact (if it is a fact) that we can conceive a _first_ event and a _first_ state of existing things, not preceded by any time or by any state of affairs at all, does not seem to me to have any tendency to prove that we can conceive a state of affairs in which there would _never_ be _any_ events or _any_ states of existing things. We still have not given any content to the idea of a world in which nothing would ever exist.

One may be tempted to assume that a world in which nothing would ever exist must be conceivable because the proposition "Nothing ever exists" does not manifest certain patterns of formal contradiction. But that cannot be assumed without argument. "Nothing ever exists" is obviously a strange proposition. It would be absurd ever to assert it, and there could not conceivably be any evidence for its truth. Our concepts are framed for use in the actual world. Even our concepts of negation and emptiness are used to describe states of affairs which have positive features as well. It is not clear that these concepts can be extended to describe a state of affairs which would have no positive features at all. I understand sentences such as "The box is empty," "No one is in the living room," "He did not come on time," and "I felt nothing at all during the operation." But it is not clear to me that "Nothing ever exists" describes any conceivable state of affairs at all.

There are perhaps other arguments for the dogma that no assertion of existence can be logically necessary. But I believe we have considered the most important arguments for the dogma, and they all seem inconclusive. The question, whether any proposition asserting the existence of something is logically necessary, remains an open question.

CHAPTER EIGHT: SPECIAL OBJECTIONS TO THE LOGICALLY NECESSARY EXISTENCE OF GOD

Some philosophers who concede that some affirmative existential propositions (such as "There are numbers") may be logically necessary maintain that nevertheless the existence of God could not be logically necessary because something which existed of logical necessity could not have the kind of existence which God, if He exists, must have. In this chapter we will consider two arguments for this position. The first is based on the claim that logically necessary propositions are not about the real world. The second depends on the thesis that the proposition "God exists" is empirically falsifiable.

I

In explaining the prevailing negative verdict on a priori proofs of the existence of God, J. N. Findlay remarks, "It is not thought possible to build bridges between mere abstractions and concrete existence."[94] The image of bridge building, or of an unbridgeable chasm, evokes a somewhat pictorial conception which I believe has had much influence on discussion of a priori arguments for the existence of God. Our conceptual system, or our language, is thought of as comprising a sort of realm of "abstractions," quite distinct from "the world," or "the real world," which is the realm of "concrete existence." According to this conception, only logically contingent truths tell us anything about the real world; logically necessary truths inform us only about concepts. The existence of some things, such as numbers, may be logically necessary; that is all right, because numbers are features of the conceptual realm anyway, so that "There are numbers" makes an assertion about the conceptual realm alone, as a logically necessary truth should. But a conscious being, such as God, must exist in the real world, if it exists at all; it cannot be merely a feature of the realm of abstractions. Therefore "God exists" must say something about the real world, and so cannot be logically necessary.

The most extensive recent presentation and defense of this line of thought, so far as I know, is to be found in a paper on "Existence" by Kurt Baier. Baier speaks of "instantiation claims," by which he means statements asserting that a certain concept is (or is not) instantiated, that there is (or is not) something of a certain description. He subdivides this group of statements

> into conceptual and actual instantiation claims. The former, such as 'there are prime numbers between 15 and 20' or 'there are no 16-edged cubes' are claims whose truth or falsity is determined by a consideration of concepts alone. The latter, such as 'There are no lions in Australia' or 'There is a bottle of Scotch in the drawer, if you lift the files' make claims concerning the world around us, hence their truth or falsity is dependent on the nature of that world and the changes in it.[95]

Baier's essay makes it quite clear that he regards the classes of conceptual and actual instantiation claims as mutually exclusive. That is, an instantiation claim "whose truth or falsity is determined by a consideration of concepts alone" cannot "make claims concerning the world around us." According to Baier, mathematical terms, such as "one, two, three" and "octagon," are used to make conceptual instantiation claims but not actual instantiation claims. "With those we make claims which do not concern the world around us and no facts about that world can have any bearing on their truth or falsity."[96] Such claims are not "even indirectly about the world around us, for they are completely cut off from what is the case in that world. The support for claims made by means of numerals and the like comes entirely from within the concept."[97]

I shall treat Baier's expression "the world around us" as a synonym for "the world" or "the real world." It is not clear to me how "around us" is meant to modify the sense of "the world"; but if "around us" has any special implications, Baier does not explain how they are relevant to his argument. I take it Baier is saying that logically necessary truths are not about the real world at all, but only about a purely conceptual realm. (Baier says that the conceptual instantiation claim "There are numbers" is a "remark within the concept."[98]) On this basis he contends that if it is a logically necessary truth that God exists, He cannot be conceived as existing in the real world.

The first point that I want to make in trying to assess the merits of this theory is that Baier applies it to negative existential statements as well as affirmative existential statements. And surely it is the very heart of the theory that all logically necessary statements are about the purely conceptual realm, and not about the real world. But let us consider a negative existential statement which clearly is logically necessary. We could use Baier's example, "There are no 16-edged cubes," or another example, such as "There are no female husbands." Baier is committed to saying that these statements cannot be about the real world. He cannot allow that it is true about the real world that there are no sixteen-edged cubes and no female husbands.

Baier is not claiming, of course, that sixteen-edged cubes and female husbands are absent only from the conceptual realm, but present in the real world. His position appears to be that logically necessary affirmative and negative instantiation claims are neither true nor false, but meaningless, about the real world. He writes,

> The fact that '16-edged cube' is an inconceivable notion makes 'there are 16-edged cubes' a false conceptual instantiation claim. With this sentence, therefore, we cannot make either a true or a false actual instantiation claim. The question cannot even arise whether or not any such cubes are to be found in the world around us.[99]

Baier seems to be saying that "There are 16-edged cubes" is not meaningless but false "within the concept," or in the conceptual realm--but that one would be saying something meaningless, or trying to say something unsayable, if one said that there are no sixteen-edged cubes in the real world.

I find these views obscure to the point of mystification. Surely it is true that there are not any sixteen-edged cubes, or any female husbands either, in the real world, or in any other possible world. It is true that there aren't any such things in the real world, or in any other possible world, because it is logically impossible that there should be such things. To say, "There are no female husbands" is to say that if there are any husbands in the real world, they (the husbands there are in the real world) are not female. It seems highly paradoxical to deny that "There are no 16-edged cubes" and "There are no female husbands" are true about the real world. It would take a very strong argument to justify such a paradoxical denial.

I do not believe Baier has a strong argument to support his position. In fact he only hints at an argument. He says that actual instantiation claims "make claims concerning the world around us, hence their truth or falsity is dependent on the nature of that world and the changes in it."[100] Similarly, he says that with mathematical concepts we make instantiation claims "which do not concern the world around us and no facts about that world can have any bearing on their truth or falsity."[101] The following argument may be suggested by these passages. The truth of a logically necessary proposition depends only on the contents and relations of concepts. But if a proposition is about the real world its truth or falsity must depend on facts about the real world. Therefore logically necessary propositions cannot be about the real world. I think both premises of this argument are true; but understood in such a way that they are both true, they do not entail the conclusion.

If a proposition is about the real world its truth or falsity must depend on facts about the real world. This is true--indeed, it is a truism--in the following sense. "Snow is white" is true about the real world if and only if in the real world snow is white. "Giraffes exist" is true about the real world if and only if giraffes exist in the real world. But I do not see why the same cannot be said about logically necessary propositions. "There are no 16-edged cubes" is true about the real world if and only if there are no sixteen-edged cubes in the real world. (Of course there are none.) "There are no female husbands" is true about the real world if and only if in the real world there are no female husbands. (And of course there are none.) Similarly, "There exists a God" is true about the real world if and only if in the real world there exists a God. That is so, regardless of whether "There exists a God" is a necessary or contingent proposition.

The truth of a logically necessary proposition depends only on the contents and relations of concepts, in the following sense. The contents and relations of concepts are sufficient for the truth of the proposition; given the contents and relations of concepts, nothing conceivable could make the proposition false. The truth of "There are no female husbands" depends only on the contents and relations of concepts in this sense. Given that maleness is included in the concept of a husband, nothing conceivable could make "There are no female husbands" false. But this is quite consistent with the claim that the truth of "There are no female husbands" depends on the fact that there are no female husbands in the real world. "There are no female husbands" would be false if there were female husbands in the real world; but that is not something conceivable which could make the proposition false.

I conclude that Baier has neither stated nor suggested a sound argument for the thesis that logically necessary propositions cannot be true about the real world. The following argument might be suggested for a contrary thesis. Necessary propositions are propositions which are true about all possible worlds. The real world is a possible world. Therefore necessary propositions are true about the real world. This argument seems to me sound.

II

At least two philosophers have suggested that God cannot consistently be conceived as a logically necessary being, on the ground that "There is a God" is meant to be an empirical proposition, which would be false in some state of affairs which might conceivably be experienced.

(A) Jerome Shaffer, in an article I cited in the previous chapter, writes,

> We are thus led to the result that the Ontological Argument of itself alone cannot show the existence of God, in the sense in which the concept is shown to have extension. And this is just as the religious wish it to be. They do not conceive of God as something whose being expresses itself entirely in the concepts and propositions of a language game. They conceive of Him as something which has effects on the world and can in some way be experienced. Here is the crucial respect in which His status is meant to be different from that of numbers.[102]

I will comment first on the implicit claim that anything whose existence was logically necessary would be "something whose being expresses itself entirely in the concepts and propositions of a language game." I take it the suggestion is that if there is a logically necessary being, his existence could only consist in there being certain concepts and propositions in a language game; it could not consist, in part, in his thinking and doing things, as my existence consists, in part, in my thinking and doing things. This seems to me to be a mistake, resting on the view, which I argued against in section I, that a statement which is based on purely conceptual grounds cannot be about anything but a purely conceptual realm. Suppose I say it is logically necessary that there exists an omniscient being. My statement can be regarded as a claim about all possible worlds and the actual world among them. What it says about them is that they contain an omniscient being, whose being, of course, expresses itself in knowing things.

But I am primarily concerned here with Shaffer's statement that God is conceived of "as something which has effects on the world and can in some way be experienced." This statement is true; but I believe the implicit inference, that therefore "God exists" is an empirical proposition, is incorrect. We may agree that it is logically contingent that God acts on the world in just the way He does, and is experienced by men in the ways in which He is believed to be experienced. His being, then, expresses itself in certain contingent acts and relationships. But it does not follow, as Shaffer supposes, that it is logically contingent that He exists. As Charles Hartshorne has repeatedly emphasized, the claim that it is logically necessary that God exists, and thinks and does some thoughts and deeds or other, does not entail that it is logically necessary that He thinks and does just those thoughts and deeds which He in fact thinks and does.[103] Therefore the claim that God's existence is logically necessary is not incompatible with the claim that there are empirical truths about God (such as, that men have experienced Him in this or that way).

(B) J. N. Findlay says some things which suggest that he also thinks "God exists" is meant to be an empirical proposition, but for somewhat different reasons. Findlay allows that if necessary truth is conceived as truth by virtue of "the arbitrary conventions of our language," it might be a necessary truth that God exists, "if we had made up our minds to speak theistically whatever the empirical circumstances might turn out to be." He seems to be agreeing that there might be, as Malcolm holds, a theistic language game whose rules provide for every conceivable situation to be correctly described as a situation in which God exists. But he goes on to claim that this position "wouldn't suffice for the full-blooded worshipper." "The religious frame of mind," Findlay believes, "desires the Divine Existence...to have...the character of 'making a real difference'" which logically necessary truths cannot have.[104] I take it that this amounts to the claim that "God exists" is meant as an empirically falsifiable proposition.

The only explanation or justification of this claim which Findlay gives is the following. He says that the resolution to speak theistically under any empirical circumstances whatever "would suffice for some, who speak theistically...merely to give expression to a particular way of looking at things, or of feeling about them. It would also suffice for those who make useof the term 'God' to cover whatever tendencies towards righteousness and beauty are actually included in the make-up of our world." But the "full-blooded worshipper" is bound to be dissatisfied with such a resolution, because he "can't help finding our actual world anything but edifying, and its half-formed tendencies towards righteousness and beauty very far from adorable."[105] The line of argument that this suggests to me is related to the problem of evil. God is conceived of, according to most who have written about a priori arguments for His existence, as omnipotent, omniscient, and perfectly good. It might be argued that the proposition that there exists such a being is empirically falsifiable because it has empirical consequences relating, for instance, to the kinds and amounts of suffering that will occur in the world and the circumstances under which suffering will occur. Perhaps Findlay thinks the "full-blooded worshipper" is committed, by his belief in the existence of God, to certain empirically falsifiable predictions about the occurrence and nonoccurrence of suffering. Perhaps some such thought as this lies behind Findlay's remark about "half-formed tendencies toward righteousness and beauty."

This argument suggested by Findlay is extremely instructive, and constitutes, I think, the most substantial point made by any of the contemporary critics of the idea of a logically necessary God. The heart of the matter is that the following three propositions constitute an inconsistent triad.

(1) God exists in all logically possible worlds.

(2) It is logically necessary that God (if He exists) is good.

(3) The claim that God is good entails that He would not permit certain conceivable states of affairs to occur.

This triad is inconsistent because if (1) and (2) are true, a good God exists in every conceivable state of affairs, but according to (3) there are certain conceivable states of affairs which would not occur if there existed a good God. This means that a theologian who holds that God's existence is logically necessary (and thus that (1) is true) is somewhat restricted as to the position he can take on how the attribute of goodness applies to God. He must deny either (2) or (3).

If he denies (2), he might take the following position. It is logically necessary that God exists. It is true, and an article of faith, but logically contingent, that God is good. That is, God exists, with all His powers and faculties, in every logically possible world, but if He had permitted certain logically possible worlds to be actual, He would not be good. In some versions of this position it might be claimed that some of the possible worlds in which God would not be good differ from the actual world only in the indefinitely distant future.

I think the rejection of proposition (2) is not without support in the Judaeo-Christian tradition. For instance, Job doubted God's goodness, but in all his troubles it does not seem to have occurred to him to doubt God's existence. It may be argued, moreover, that those who accept (1) must reject (2) if they take "God is good" to mean that God is "morally good" in the sense in which men are ordinarily said to be "morally good." For as was noted in the Introduction to Part Two, those who accept (1) regard it as implying that there is an individual who exists, and is God, in all logically possible worlds. If they were also to hold that being morally good in the ordinary sense is a logically necessary condition of being God, they would have to say that God is an individual who exists, and is morally good (in the ordinary sense), in every logically possible world. In other words, they would be committed to the view that God is an individual who could not (logically could not) fail to be morally good in the ordinary sense. I think it is very doubtful whether that view makes sense. For it seems that to say that a certain individual is morally good in the ordinary sense implies that he voluntarily acted in certain ways in which it was possible for him not to have acted, and that he would not have been morally good if he had acted in certain ways in which it was possible for him to have acted. If saying that someone is morally good in the ordinary sense does have this implication, there cannot be an individual who logically could not fail to be morally good in the ordinary sense.

I think that most defenders of the logically necessary existence of God are more likely to reject (3) than (2), however. That is, they are less likely to say it is merely contingent that God is good than they are to say that "is good" in "God is good" functions very differently from "is good" in "Socrates is good." One position one might take if one accepts both God's necessary existence and His necessary goodness is that in saying "God is good" one is not claiming that God's behavior satisfies certain recognized standards of moral goodness. Rather one is committing oneself to obey God's will, whatever it should be, and to acquiesce in *whatever* state of affairs He permits to occur. Some remarks of Malcolm's about God's knowledge and power suggest that he might hold such views about God's goodness as well.

> We have criteria for determining that a man knows this and that and can do this and that, and for determining that one man has greater knowledge and abilities in a certain subject than another. We could think of various tests to give them. But there is nothing we should wish to describe, seriously and literally, as "testing" God's knowledge and powers. That God is omniscient and omnipotent has not been determined by the application of criteria: rather these are requirements of our conception of Him.[106]

When we say that a man is powerful or knowledgeable, we commit ourselves to the claim that he satisfies certain empirical criteria. (What criteria these are, depends in part on the context.) But when we say that God is all-powerful or all-knowing, according to Malcolm, we do not mean that God satisfies certain criteria, or passes certain empirical tests of power or knowledge. Similarly, one may conjecture that Malcolm would say that goodness is not ascribed to God by virtue of His satisfying certain criteria. On this view the proposition that there exists a good God would be seen as a necessary expression of a conceptual system in terms of which every conceivable empirical circumstance can be interpreted.

Perhaps this position amounts to an endorsement of the resolution "to speak theistically *whatever the empirical circumstances might turn out to be*," which Findlay regards as unacceptable to "the full-blooded worshipper." But Findlay's claim about the unacceptability of such a resolution to "the full-blooded worshipper" may be questioned. There is certainly a long tradition in Christian thought which denies that men have the right to pass, on any conceivable empirical circumstance, the judgment that it would be wrong for God to bring it about. St. Paul asks, rhetorically,

> But who are you, a man, to answer back to God? Will what is molded say to its molder, "Why have you made me thus?" Has the potter no right over the clay, to make out of the same lump one vessel for beauty and another for menial use?[107]

And it has sometimes been claimed that whatever God did would be right just because God did it, in the sense that His will is not subject to moral norms but is itself the supreme moral norm, which cannot be judged by any other standard. William Ockham writes,

> By the very fact that God wills something, it is right for it to be done. ...Hence if God were to cause hatred of Himself in anyone's will, that is, if He were to be the total cause of the act (He is, as it is, its partial cause), neither would that man sin nor would God; for God is not under any obligation, while the man is not (in the case) obliged, because the act would not be in his own power.[108]

These passages can certainly be read as urging us "to speak theistically, and to regard God as good, whatever the empirical circumstances might turn out to be." If someone who holds such views says that God is good, he is presumably not awarding God a verbal good-conduct medal, but submitting himself absolutely to God's will. The statements of Paul and Ockham which I cited have aroused controversy among religious believers, but their authors were certainly "full-blooded worshippers" by normal standards. So it seems that Findlay is mistaken about some "full-blooded worshippers" at least.

I think there is a valid point about "full-blooded worshippers" in the Judaeo-Christian tradition which may be leading Findlay astray here. An important part of faith, for that tradition, has consisted in expectations, generally rather difficult to falsify, about the future. Someone who lacked such expectations would thereby fail to be a paradigm of Jewish or Christian faith. Some of the expectations in question are held as articles of faith (e.g., that "we must all appear before the judgment seat of Christ"[109]), but are not regarded as logically necessary truths. (God could have planned things otherwise.) Such expectations are very important religiously, but it does not follow that their falsification would constitute a falsification of the claim that God exists and is good. The falsification of such expectations might merely show that God was good in some other way than had been believed.

I am not sure that either of the two positions I have sketched (denying (2) and (3), respectively) or some other view of God's goodness consistent with His logically necessary existence, would prove satisfactory on more searching examination. The development of an adequate theory of God's goodness which is consistent with the theory that His existence is logically necessary is an important task which I believe still confronts the partisans of the latter theory. Nonetheless, I think Findlay has not proved, and it is not clear, that this task cannot be successfully accomplished.

CHAPTER NINE: PRESUMPTIONS OF POSSIBILITY

In this chapter we will consider proposals for settling by presumptive arguments the question whether it is possible that there exists a God whose existence is logically necessary. Presumption is an alternative to proof; and throughout the chapter we shall assume, as a working hypothesis, that neither God's existence nor His nonexistence has been *proved* possible.

The idea that the possibility of God's existence can be established by a presumptive argument goes back at least to Leibniz. Leibniz believed that an ontological argument succeeded in proving that if God's existence is possible, He exists. He thought that one could then presume that God's existence is possible, and therefore that God exists. Some of Leibniz's remarks on this subject are worth quoting at length, because of the clarity with which they present the concept of presumption.

> ...And furthermore, this argument yields, at least presumptively, the Existence of God.
>
> For every being ought to be judged possible *donec probetur contrarium* [until the contrary is proved], until it is shown that it is not possible at all.
>
> This is what is called *presumption*, which is incomparably more than a simple *supposition*, since most suppositions ought not to be admitted unless they are proved, but everything that has presumption for it ought to pass for true until it is refuted.
>
> Therefore, the existence of God has presumption for it, in virtue of this argument, since it requires only its possibility. And possibility is always presumed and ought to be held for true until the impossibility is proved.
>
> So this Argument has the effect of transferring *onus probandi in adversarium* [the burden of proof to the opponent], or of making the opponent responsible for the proof. And since one will never prove that impossibility, the existence of God must be held for true.

> Nevertheless, in order to complete the demonstration in an absolute and Geometrical manner, it is to be desired that one should give the proof of the possibility with which we are concerned.[110]

According to Leibniz it is possibility that is favored by presumption. All the presumptions that will be proposed for discussion in this chapter can be treated as presumptions of possibility; but in order to formulate any argument precisely it is necessary to have a rule stating what it is that is to be presumed possible, and under what conditions. In sections I and II of the chapter we shall consider presumptive rules favoring possibility (or contingency) of propositions as such; and we shall see that these rules are not adequate to decide whether it is the existence or the nonexistence of God which ought to be presumed possible. Section III will deal with opposite proposed presumptive rules, favoring possibility of existence and favoring possibility of nonexistence.

I

Let us consider first a simple presumptive argument which goes as follows. We are entitled to assume of any proposition that its truth is possible, unless and until it is proved to be impossible. We are not obliged to prove its possibility, but only to rebut any specific arguments purporting to show that it is impossible. Therefore, in the absence of proof to the contrary, we are entitled to assume that the truth of "God exists" is possible.

This is clearly not an adequate justification of the possibility premise of the modal argument for the existence of God. In most contexts it is indeed reasonable to assume that the truth of any proposition is possible, if it has not been proved impossible. But in the modal argument for the existence of God, it is supposed to be proved that *either* it is necessary that God exists *or* it is necessary that God does not exist. In symbols this would be "Ng V N~g," which is equivalent to step (7) of Modal Argument A, as I pointed out in Chapter Two; it is also equivalent to "~M~g V~Mg." It is supposed, that is, that *either* it is impossible that God does not exist *or* it is impossible that God does exist. Therefore if we are asked, in the modal argument for the existence of God, simply to presume that the existence of God is possible, we are being asked to decide, by presumption, for the existence of God, and against His nonexistence. In effect, we are being asked to presume the impossibility of God's nonexistence. But on the general principle that the truth of any proposition may be presumed possible until proved impossible, we are just as much entitled to presume that it is possible that God does not exist, as we are to presume that it is possible that God does exist. The general principle would in many contexts justify us in presuming that a proposition asserting the existence of a thing is possibly true; but it does not justify us in this context in presuming that "God exists" *rather than* "God does not exist" is possibly true.[111]

A proof that either the existence or the nonexistence of God is necessary may be regarded as a two-edged sword. If we have such a proof, then *if* we assume that the existence of God is possible, we can prove that God exists—and indeed, that it is impossible that God should not exist. But equally, *if* we assume that the nonexistence of God is possible, we can prove that God does not exist—and indeed, that it is impossible that God should exist. We have not yet seen that the general presumption in favor of possibility gives us any reason for assuming one *rather than* the other.

What is required, in order to bring the argument to a conclusion, is some good reason for believing the existence of God to be possible, to which there does not correspond an equally good reason for believing the nonexistence of God to be possible—or else some good reason for believing the nonexistence of God to be possible to which there does not correspond an equally good reason for believing the existence of God to be possible.

I think we ought to say that our general presumption in favor of possibility is really a presumption in favor of contingency. By "a contingent proposition" we mean a proposition whose truth is neither necessary nor impossible; there are, of course, false contingent propositions as well as true ones. The general presumption in favor of possibility says that the truth of any proposition p is to be assumed to be possible unless proved impossible; but it also says that the truth of not-p is to be assumed possible unless proved impossible, which means that the truth of p is presumed to be not necessary unless proved necessary. That is, the truth of p is presumed to be neither necessary nor impossible unless proved otherwise--which means that p is presumed to be a contingent proposition unless proved otherwise.

But we are assuming, in effect, that "God exists" is not a contingent proposition. That is, either it or its negation is necessarily true. So assuming, we obviously are not in a position to presume the contingency of "God exists" (or of "God does not exist").

II

The simple rule that a proposition is to be presumed contingent unless it is proved not to be contingent is not sufficient to settle the question whether it is the existence or the nonexistence of a logically necessary God that is possible. We may consider, however, whether the following modified or extended version of the rule would yield a decision of the question. If, of two contradictory noncontingent propositions, such as "God exists" and "God does not exist," one entails the necessity of some propositions which the other allows to be contingent, the modified or extended rule would be to presume the truth of the alternative which allows the other propositions to be contingent. This could be called a rule favoring "maximum contingency," and might be thought to provide a means of deciding, in the spirit of the simpler rule, questions which the simpler rule cannot decide.

It might be argued that this extended rule can be used to justify a presumption that "God does not exist," rather than "God exists," is possible. Most theologians who want to say that God's existence is logically necessary would also insist that it is logically necessary that God knows all truths. So let us assume that "God exists" logically entails "There exists a being that knows all truths." Then the necessary truth of "God exists" implies the necessary truth of "There exists a being that knows all truths." But on our present assumptions, if "God exists" is true or possibly true, it is necessarily true; so if "God exists" is true or possibly true "There exists a being that knows all truths" is necessarily true, and therefore not contingent.

But there is no obvious reason to deny that "There exists a being that knows all truths" might be true even if there does not exist any being that qualifies for the designation "God." If "God does not exist" is true, and indeed necessarily true, "There exists a being that knows all truths" may be contingent--possibly true and possibly false.

Hence it might be argued that the extended presumption in favor of maximum contingency dictates that we should presume that God does not exist, since by so presuming we would save the contingency of "There exists a being that knows all truths."

This seems to me to be a very weak argument, because there are also many propositions whose contingency is preserved by the necessary existence of God, and destroyed by the necessary nonexistence of God. Consider the proposition

(P) Giraffes have been created by God.

If God does not exist, it follows logically that (P) is false. Consequently, if God's nonexistence is necessary, (P) is necessarily false. But if God does exist, even supposing His existence is necessary, (P) appears to be a contingent proposition; for God might have chosen not to create giraffes. I think it is easy to see that indefinitely many propositions can be framed on this model which are contingent if God's existence is necessary, but necessarily false if God's nonexistence is necessary.

An objection might be made along the following lines. (P) is equivalent to the conjunction of the following two propositions, in the sense that it both entails and is entailed by the conjunction of them.

(Q) God exists.

(R) Giraffes exist, and if God exists He has created giraffes.

(Q), of course, is not a contingent proposition in any case, according to our assumptions in this chapter. But (R) is contingent regardless of whether it is God's existence or nonexistence that is necessary. For if God necessarily does not exist, it is necessarily true that if God exists He has created giraffes (the "if" here is the "if" of material implication); but giraffes may or may not exist, and so (R) may be true or false.

And if God necessarily exists, He may or may not have created giraffes; so again (R) may be true or false. Now it may be argued that we are not entitled to presume anything about the existence of God in order to preserve the contingency of (P), on the ground that (P) can be represented as the conjunction of (Q), which is not contingent in any case, and (R), which is contingent regardless of whether God's existence is necessary or impossible.

But if this objection is sufficient to overthrow a presumption of God's existence, grounded on the presumable contingency of (P), then a similar objection will suffice to overthrow the presumption of God's nonexistence allegedly grounded on the presumable contingency of the existence of a being that knows all truths. Consider the proposition

(S) There does not exist a being that knows all truths.

The argument for presuming the nonexistence of God which we are studying rests entirely on the claim that (S) and its contradictory would be contingent if God necessarily does not exist, but if God necessarily exists (S) would be necessarily false and its contradictory would be necessarily true. (S) therefore must be taken as entailing the noncontingent proposition "God does not exist." (S) is equivalent, indeed, to the conjunction of the following two propositions.

(T) God does not exist.

(U) No being that is not God knows all truths.

Of these two propositions, (T) is not contingent in any case, and (U) seems to be contingent regardless of whether God's existence is necessary or impossible. For in either case there might or might not be some being other than God that knows all truths.

Perhaps this last point would be disputed by some, who might maintain that the concept of God is the concept of the only being that knows all truths, and that therefore (U) is necessarily true if God's existence is necessary. Even if they should be right, the argument is not seriously affected; for (S) is also equivalent to the conjunction of the following two propositions.

(T) God does not exist.

(V) No being that has not created giraffes knows all truths, and no being that is not God knows all truths.

(V) is clearly contingent regardless of whether God's existence is necessary or impossible. If God exists, and if that implies that no being other than God knows all truths, then (V) will be true if God has created giraffes, and false if He has not created giraffes. If God does not exist, (V) will be true if no being knows all truths, and false if some being knows all truths.

It may be objected that (V) is a very artificial proposition, that giraffes have nothing to do with the matter, and that it is arbitrary to expand (U) and (V) when (S) is already equivalent to the conjunction of (T) and (U). It should be observed, however, that similar things could be said about (R). If, by deleting "Giraffes exist," we change (R) to

(R′) If God exists He has created giraffes.

we find that the conjunction of (Q) and (R′) is still equivalent to (P), so that "Giraffes exist" in (R) is in a sense superfluous. But (R′) is necessarily true, not contingent, if God's nonexistence is necessary, so that the conjunction of (Q) and (R′) would not include a conjunct that would be contingent if God's nonexistence is necessary.

In sum, if the fact that (P) is equivalent to the conjunction of (Q) and (R) is sufficient to void a presumption in favor of God's existence based on the presumable contingency of (P), I see no compelling reason why the fact that (S) is equivalent to the conjunction of (T) and (U) or (T) and (V) should not suffice to void a presumption in favor of God's nonexistence based on the presumable contingency of (S). In fact, I doubt very much that these equivalences suffice to void any presumption.

The conclusion indicated by the discussion of this section is that, assuming that "God exists" is not contingent, there are propositions whose contingency would be saved by presuming that God does not exist, but also indefinitely many propositions whose contingency would be saved by presuming that God does exist. There appears to be no firm ground here for a presumption one way or the other.

III

The presumptive rules we have considered so far have not been sufficient to decide the question whether it is the existence or the nonexistence of a logically necessary God which ought to be presumed possible. In this section I want to discuss a pair of opposite rules of presumption which appear to approach the question more directly. These are a rule favoring possibility of existence, and a rule favoring possibility of nonexistence.

(A) A general presumption of possibility of existence, in preference, if need be, to possibility of nonexistence, is suggested (perhaps intentionally) by Leibniz. In his remarks about presumptions which I quoted at the beginning of this chapter Leibniz does not speak explicitly about possibility of propositions. He does speak about possibility of beings. "For every being ought to be judged possible...until it is shown that it is not possible at all."[112]

A general presumptive rule favoring possibility of existence might read: "Every proposition asserting that there exists a certain thing, or a certain kind of thing, is to be presumed possibly true unless it is proved not to be--in preference, if need be, to propositions of other types." This rule would have the consequence that if the question whether a certain thing exists is known not to be contingent, we ought to presume that that thing exists, unless it is proved not to exist.

If we assume that the question whether God exists is not contingent, and that we have no better way to settle it than by presumption, it may seem that this rule would lead us to settle the question in favor of God's existence.

I do not know whether Leibniz could have given any persuasive reasons for accepting such a rule, but in any case it seems to be liable to a fatal objection. For if we try to apply the rule to all affirmative existential propositions which may plausibly be regarded as noncontingent, we shall probably be forced to presume contradictory things. If there are any affirmative existential propositions of which it is plausible to suppose (a) that they are not contingent, and (b) that we have no better way than presumption to decide whether they are necessary or impossible, it is very likely that there are some such propositions which are inconsistent with each other.

Consider the concept of something which (without claiming to give a correct interpretation of Plato) we may call "the Form of the Good."

The features of this concept which interest us are that it is the concept of something whose existence is not contingent but either necessary or impossible, and that it is the concept of a nonliving thing on which anything else that exists depends for its existence. "The existence of the Form of the Good is possible" then entails the following proposition.

J: "$N(\exists x)(x \text{ is not living } \& \ (y)(y \neq x \supset y \text{ depends for its existence on } x))$"

Now consider the concept of God. We are assuming that the existence of God is either necessary or impossible. Certainly the concept of God is the concept of a living being; and Malcolm seems justified in saying that "it is incompatible with [the common meaning of the word 'God'] that God's existence should *depend* on anything."[113] So "The existence of God is possible" entails the following proposition.

K: "$N(\exists x)(x \text{ is living } \& \ (y)(y \neq x \supset x \text{ does not depend for its existence on } y))$"

J and K are logically inconsistent with each other. For suppose they were both true; let us use the terms "the Form of the Good" and "God" to refer to the beings whose existence is asserted by J and K, respectively. The Form of the Good and God cannot be the same being, for God is living and the Form of the Good is not. Since they are not identical, it follows from J that God depends for His existence on the Form of the Good, and it follows from K that God does not depend for His existence on the Form of the Good.

Thus, presuming both that the existence of God is possible and that the existence of the Form of the Good is possible leads to a contradiction. In other words, the existence of the Form of the Good must be impossible if God's existence is possible. And so far we have not considered any reason for presuming that the existence of one of these entities, rather than the existence of the other, is possible.

It seemed at first that a general rule of presumption favoring possibility of existence might be a rule which could decide the question whether it is the existence or the nonexistence of a logically necessary God which is possible. But now it appears probable that such a rule cannot be used to decide the question after all, because it would lead us to presume the possible existence, not only of God, but also of a logically necessary being whose existence is logically inconsistent with the existence of God. Of course it may be that there are independent grounds for supposing that the existence of the Form of the Good, as I have defined it, is logically impossible. But I do not see any such grounds which would not lead us through a thicket of metaphysical controversy. It seems to be about as plausible to suppose that we have no better way than presumption to decide whether the existence of the Form of the Good is possible, as it is to suppose that we have no better way than presumption to decide whether the existence of God is possible. And even if the existence of the Form of the Good can be proved logically impossible, there might be other entities whose existence would be inconsistent with the existence of God but would have as plausible a claim to be presumed possible under a general presumptive rule favoring possibility of existence. Therefore I think we cannot expect that a general presumption of possibility of existence will solve our problem.

(B) But perhaps it will be argued that nonexistence ought always to be presumed possible unless proved impossible--in preference, if need be, to existence. In Chapter Seven we discussed a number of arguments by which it has been attempted to prove that nonexistence is always possible.

Those arguments were all found to be inconclusive; hence we cannot insist dogmatically that all propositions asserting the nonexistence of something are possibly true. But there may still be grounds for a general presumption preferring possibility of nonexistence to possibility of existence.

Such a presumption might be supported by two considerations which may be regarded as considerations of simplicity. (1) It might be claimed that by adopting a presumptive rule favoring nonexistence, we could either entirely eliminate necessary assertions of existence or else keep their number (or at least their variety) very small. And if we could say that all assertions of existence (or all, with a few specifiable exceptions) are possibly false, that might seem to add to the simplicity or theoretical orderliness of our logic or philosophy of logic. (2) In addition, the familiar philosophical maxim that the number and variety of things one believes to exist should not be increased unnecessarily may seem to lend some support to the rule "If the question whether a certain thing exists is not contingent, presume that that thing does not exist, unless it is proved to exist."

I believe that these two considerations have some weight, as other considerations of simplicity do, in the sort of question with which we are dealing. But they ought to be so weighty as to be decisive, if they are to serve as the foundation of a universal presumption preferring possibility of nonexistence to possibility of existence. And I think they are not decisive. There are many sorts of simplicity which can be claimed for a theory or a conceptual scheme. The simplicity of a theory cannot be measured solely by the number of entities or kinds of entities whose existence it entails. A physical theory which postulates the existence of subatomic particles may have more simplicity than a theory which dispenses with them, if the theory which postulates the particles makes possible less cumbersome explanations, in terms of simpler laws. Theists commonly claim that belief in the existence of God makes possible a framework of metaphysical concepts and beliefs which is simpler, because better integrated, than alternative frameworks. One may or may not agree with them, but they cannot be refuted just by pointing out that their views entail the existence of an entity (God) whose existence is not required by other views. Granted that superfluous multiplication of entities makes a theory unnecessarily complicated, nonetheless belief in the existence of a certain entity can sometimes make for greater simplicity.

And as for the simplification of logical theory to be obtained by supposing that all, or almost all, assertions of existence are possibly false, that seems to me a rather trivial consideration, though not entirely irrelevant.

I conclude that the two considerations which I have mentioned are not strong enough to establish a general presumption preferring possibility of nonexistence to possibility of existence in all doubtful cases, and not strong enough to settle the question whether it is the existence or the nonexistence of a logically necessary God which ought to be regarded as possible.

CHAPTER TEN: MALCOLM ON THE CONSISTENCY OF THE CONCEPT OF GOD

In this chapter we shall be studying the following paragraph from Norman Malcolm's essay on Anselm's arguments, to see if it contains or suggests an argument which would justify acceptance of Premise II of the modal argument for the existence of God.

> I do not know how to demonstrate that the concept of God--that is, of a being a greater than which cannot be conceived--is not self-contradictory. But I do not think that it is legitimate to demand such a demonstration. I also do not know how to demonstrate that either the concept of a material thing or the concept of seeing a material thing is not self-contradictory, and philosophers have argued that both of them are. With respect to any particular reasoning that is offered for holding that the concept of seeing a material thing, for example, is self-contradictory, one may try to show the invalidity of the reasoning and thus free the concept from the charge of being self-contradictory on that ground. But I do not understand what it would mean to demonstrate in general, and not in respect to any particular reasoning, that the concept is not self-contradictory. So it is with the concept of God. I should think there is no more of a presumption that it is self-contradictory than is the concept of seeing a material thing. Both concepts have a place in the thinking and the lives of human beings.[114]

In the first section of the chapter I shall attempt to interpret the paragraph and explain the argument which Malcolm seems to have in mind. In the second section we will consider a series of objections to the argument, and counterobjections on Malcolm's behalf. And in the third section I shall argue that even if Malcolm's argument can be defended successfully against the objections presented in section II, he has provided no justification for supposing (as the modal argument requires) that the existence of God, rather than His nonexistence, is possible.

I

(A) Malcolm states the issue in terms of the consistency of a concept. We must therefore consider what is meant by saying that a concept is, or is not, self-contradictory. To say that a concept is self-contradictory is not to say that every proposition in which the concept is used is self-contradictory. The concept of a round square would be self-contradictory if it implied that there exist round squares. Perhaps we may say that a concept is self-contradictory, if (and only if) every proposition which implies that there exists or occurs an instance of the concept is self-contradictory. A concept is consistent if (and only if) a proposition which implies that there exists or occurs an instance of the concept is consistent. (I believe this is true at least of concepts of things and events which are conceived of as really existing or occurring; we need not consider here what is involved in the consistency or self-contradictoriness of other concepts, such as those of a "nonexistent thing" or a "fictitious person.")

This interpretation of "self-contradictory" as applied to concepts seems to agree with Malcolm's meaning. For he supposes that "God exists" will be self-contradictory if (and only if) the concept of God is self-contradictory. But "There is no God" would be true if (and Malcolm thinks, only if) the concept of God were self-contradictory. When Malcolm holds that the concept of God is not self-contradictory, he means that it is not self-contradictory to say that there is an instance of the concept--he means that "There is an x who is God" is not self-contradictory. Similarly, to say that the concept of seeing a material thing is not self-contradictory is to say that it can consistently be supposed that there are instances of the concept--it is to say that "There is an x such that x sees a material thing" is not self-contradictory.

Thus a general presumption of the consistency of concepts would have substantially the same effect (at least in the cases we are concerned with) as a general rule that an affirmative existential proposition is to be presumed consistent, in preference, if need be, to the corresponding negative existential proposition. I do not mean to suggest, however, that Malcolm is proposing a general presumption of the consistency of concepts; he is not. Indeed, we shall see that his argument is probably not meant to rest on a presumption at all; but even if it were to be construed as a presumptive argument, there would be another reason for denying that it involves such a general presumption.

(B) Malcolm is not making a claim about all concepts, or about concepts in general, but about concepts which "have a place in the thinking and the lives of human beings." It is centrally important to his argument that the concept of God, like the concept of seeing a material thing, has such a place. Malcolm is not committed to any sort of supposition or presumption of the consistency of concepts which do not have such a place. He is not committed, for instance, to the claim that the concept of the Form of the Good, as described in Chapter Nine, section III above, is (or ought to be presumed) consistent--unless it appears that that concept of the Form of the Good has some importance in human life.

This means, however, that Malcolm's argument could not be used to support belief in the consistency of just any concept of God. The concept of God defended must be a concept of God which plays a part in the lives of at least some people. The use of such an argument to defend Premise II of the modal argument for the existence of God imposes a very definite limitation on the strategies available to Malcolm for the defense of

Premise I. Malcolm cannot arbitrarily construct a concept of God for which Premise I will be true; he must show that some concept of God which plays an important part in the lives of human beings is a concept of a logically necessary being. He does attempt to show that, of course; but I have argued in Part Two that his argument is not conclusive. I believe that none of the arguments considered in Part Two makes it clear that any concept of God which plays an important part in human life is a concept of a logically necessary being. We did see that a concept of God (at least in some suitably broad sense of "concept") can be constructed which will be a concept of a logically necessary being; but Malcolm's argument cannot be used to defend the consistency of such a concept unless it can be shown that that concept does, after all, have more than a merely philosophical function in the lives of human beings.

(C) In his article on Anselm's arguments, Malcolm says that "the only intelligible way" of denying God's existence "is to maintain that the concept of God... is self-contradictory or nonsensical."[115] What we have been discussing, and what we shall continue to discuss in this chapter, is Malcolm's reply to the suggestion that the concept of God might be self-contradictory. He does not address himself quite as directly to the question whether the concept of God is nonsensical. He does express the belief, however, that "one could grasp the sense of the concept" of God if (and only if) one understood its connections with "the human phenomena that lie behind it." Malcolm suggests that one experience which may be among the human phenomena that give rise to the concept of God as an unlimited being is the experience of a desire for a "forgiveness 'a greater than which cannot be conceived.'"[116]

I think it is fair to take Malcolm as holding that to "grasp the sense of the concept of God" is to understand the "place" that the concept of God has "in the thinking and the lives of human beings." It follows, I believe, that a concept which has such a place in human life cannot fail to have a sense, cannot be nonsensical, in Malcolm's view.

(D) In the paragraph quoted at the beginning of this chapter it looks very much as if Malcolm is saying that the concept of God ought to be presumed consistent unless it is proved self-contradictory. He certainly says that the theist need not, perhaps cannot, "demonstrate" that the concept of God is not self-contradictory; it is enough if he can refute any particular attempt to show that the concept of God is self-contradictory. There is reason to believe, however, that the argument Malcolm has in mind is not really a presumptive argument, and that his position is that we can know that any concept which has a place in the thinking and the lives of human beings cannot be self-contradictory.

In his article on Anselm's arguments Malcolm does not explain why their having a place in human life and thought justifies us in supposing that the concepts of God and of seeing a material thing are not self-contradictory. He does explain himself on this point in a lecture on G. E. Moore, published shortly after the article on Anselm.[117] His explanation of the argument makes clear that he regards it as having much more than a merely presumptive force.

In the lecture on Moore Malcolm deals, once again, with the concept of seeing a material thing, or seeing a body. He presents an argument by which H. A. Prichard thought he had proved the absurdity of the concept of seeing a material thing. Malcolm points out that Moore did not say how such arguments went wrong but simply insisted that they must be wrong because he, Moore, did sometimes see material things, such as doors and fingers. Moore could be accused of begging the question at this point, and Malcolm undertakes to defend him against the charge.

Malcolm makes clear that by "absurdity of a concept" he means absurdity of a certain class of statements which have an affirmative existential form. Prichard's view "that the very notion of seeing a body is absurd"[118] can be stated as follows.

> Prichard is holding that there is a conceptual absurdity in saying such a thing as "I see a raccoon in your corn patch," or in making any affirmative statement expressed by a sentence whose main verb is some form of the verb "see," used in a visual sense and taking for its object the name of a body.[119]

The sentences we are to discuss are sentences like "I see a raccoon in your corn patch," "He saw the money with his own eyes," "Somebody saw a yellow-crowned night heron in there," "You will see the White House when we go to Washington." I take it that sentences such as "No one ever really sees a material object," which are not affirmative, are not among the sentences Prichard is said to think are absurd. The sentences under discussion imply that a certain description is, was, or will be satisfied by an existing person.

Referring to such sentences, Malcolm argues,

> If those sentences embodied some conceptual absurdity then they would not have a correct use. They could never express true statements. But those sentences do have a correct use.[120]

Malcolm argues that the sentences in question cannot be conceptually absurd because they do have a correct use. He is claiming more than he appeared to be claiming in the essay on Anselm's arguments. There he said, "I do not understand what it would mean to demonstrate in general, and not in respect to any particular reasoning, that the concept [of seeing a material thing] is not self-contradictory."[121] But here Malcolm is arguing not merely that we are entitled to presume, but that we can be quite certain that the concept of seeing a material thing is not absurd, even though we have not found where Prichard goes wrong in his attempt to show that the concept of seeing a material thing is absurd.

How can these two positions be reconciled? In the Anselm paper Malcolm rejected the idea of a general demonstration that the concept of seeing a material thing is not self-contradictory. But in the lecture on Moore (and in a related article published simultaneously with the Anselm paper, as Robert Coburn points out[122]) it looks very much as if he is attempting just such a general demonstration. Certainly the argument he offers in the lecture on Moore is presented as a perfectly general vindication of the consistency of the concept of seeing a material thing.

But perhaps the argument does not count as a "demonstration" for Malcolm. According to Malcolm the point that Moore "made (without fully realizing it) was that it is not even a question whether...[certain] sentences of ordinary language have a correct use." Moore "reminded other philosophers of the plain facts of language."[123] Perhaps Malcolm would regard it as unnecessarily pretentious to refer to such a reminder as a "demonstration"; perhaps he would regard it as misleading to speak of a "demonstration" where "not even a question" can arise. I believe that this suggestion is substantially correct--that Malcolm regards his argument in defense of the consistency of the concept of seeing a material thing as conclusive but not as a "demonstration," because he does not think it has the sort of form that a "demonstration" would be expected to have.[124] I think it is quite clear in the lecture on Moore that Malcolm is arguing that we have perfectly conclusive reasons for believing that the concept of seeing a material thing is not self-contradictory. And in the essay on Anselm's arguments he claims that we have the same sort of reasons for supposing that the concept of God is consistent as we have for supposing that the concept of seeing a material thing is consistent. It seems reasonable to suppose that the essay on Anselm is to be interpreted in the same way as the lecture on Moore, and that the arguments are intended to be conclusive, rather than presumptive, in both cases, although Malcolm denies (misleadingly, perhaps) that they are "demonstrations."

(E) Malcolm argues that the concept of seeing a material thing cannot be self-contradictory because sentences asserting that material things are seen have a correct use. He fills out the argument as follows.

> A child is taught that he is wrong when he says "I see a pussy cat" while he is looking the wrong way, but that he is right when his eyes are following the cat's movements. If the sentence involved a conceptual absurdity he would never be right and he would not be told that he was. The language has the use that we give it.[125]

We may grant two points in this argument as obvious truths. Children are taught that it is right in certain circumstances to say "I see a pussy cat." And they would never be right in saying it if the sentence involved a conceptual absurdity. But it is not an obvious truth that a child would not be told that he was right in saying "I see a pussy cat" if the sentence involved a conceptual absurdity. It does not follow from the fact that he would not be right, that he would not be told that he was. I take it Malcolm's reasoning on this crucial point goes somewhat as follows.

A sentence in our language involves a conceptual absurdity just in case the rules of our language make it false or senseless. But what those rules are depends on how we actually speak. "The language has the use that we give it." If we do use linguistic expressions in a certain way, for a certain purpose, and teach children to use them so, then that is a correct use of those expressions and nothing conceivable could prove that it is not. If we teach our children that in certain actual or conceivable circumstances it is, or would be, right to say "I see a pussy cat," and if we teach them to connect these words with certain responses on our part and on theirs, then the sentence "I see a pussy cat" has a correct use and cannot involve a conceptual absurdity.

The same argument can be applied to the concept of God. It is an undeniable fact that children are taught to use the word "God" in such sentences as "God sent Jesus to teach us to love each other," "God loves me," "God made the flowers and the trees." Children are taught to say such things, and they are taught how hearing and saying such things are related to a whole religious way of life. Since "the language has the use that we give it," these sentences which are taught to children are not conceptually absurd but have a correct use. They are sentences which express affirmative existential propositions, in the sense that they imply that there is a being who is God and who does or did the things God is said to do or to have done. Since they have a correct use, the concept of God is not absurd, and the existence of God is logically possible.

This argument has some plausibility. There is wide agreement among contemporary philosophers that a sentence is conceptually absurd only if the rules of language make it false or senseless and that what those rules are depends on how we actually do speak. How, then, could a sentence be absurd if we teach our children to use it as part of a way of life?

II

It is not easy to see to the bottom of Malcolm's argument. I am not sure that I have done so; but what I have been able to see has not convinced me of the truth of his contention that a concept which has a place in human life cannot be self-contradictory. In this section I propose to consider a sequence of objections and counterobjections, beginning with Robert Coburn's objection to the claim that the concept of God must be free from contradiction because it plays a part in people's lives.

Coburn is willing to admit that sentences implying that God exists do have correct uses--"in the sense that there do exist in most religious communities...procedures for determining when a religious utterance is orthodox and when not, rules specifying under what circumstances, with what tone of voice, etc., certain religious utterances are properly issued, and so on." But he thinks it does not follow that the concept of God is "free from internal contradiction."[126]

Coburn constructs a counterexample to prove his point. It is conceivable, he claims, that there should be a religious community which worshiped "a deity one of whose prominent--indeed defining--features is the capacity to wander through time at will and to reward devotees with a post-mortem embodied existence and a similar capacity for time-travel."[127] Sentences implying the existence of time-travel would have a "correct use" in the sense that the community would use them and would have procedures for determining when and how they ought and ought not to be used, and the use of them would have a function in the community's way of life.

But Coburn believes that the concepts of this community would not be free from internal contradiction. He thinks "it's quite clear...that the existence of such a deity is logically impossible in virtue of the logical defects with which the notion of time-travel fairly bristles." He lists several logically objectionable "consequences of the possibility of voluntary time-travel"--for example, "that we could make things to have happened in the past," and "that we could remember events in our own futures."[128]

I will try to spell out a little more clearly what appears to be involved in this sort of "internal contradiction" which Coburn thinks might be found in a religious conception that had a place in human life. Consider the sentence,

(W) If we obey our God, we shall be able to visit any time we choose, when we are dead.

In Coburn's imaginary tribe there are rules governing the use of such sentences as (W) from which it follows that it is sometimes right to utter (W). Coburn assumes, in addition, that the tribe has linguistic rules according to which anyone who uses (W) to make an assertion must also accept the proposition expressed by

(X) If we obey our God, we shall be able to make things to have happened in the past, when we are dead.

And he assumes, further, that the tribe has linguistic rules according to which it could not ever be right to use (X) to make an assertion. Thus there is a conflict among the tribe's linguistic rules, which constitutes an internal contradiction in their conceptual scheme.

In order to defend the conclusiveness of Malcolm's argument, one would have to maintain that such an internal contradiction could not arise in any living religious conceptual system. One might try to argue as follows. In order to derive the contradiction, Coburn must assume that the linguistic rules of the tribe have these three consequences: (1) that it is sometimes right to use (W) to make an assertion, (2) that (W) entails (X), and (3) that it cannot ever be right to use (X) to make an assertion. The tribe, as described, will certainly agree that it is sometimes right to use (W) to make an assertion. But if we go and confront them with the other two consequences, they may all deny one of them. They may all deny that (W) entails (X), or they may all deny that there is anything wrong with (X). In that case, Malcolm will say, we must take their word for it, and there is no contradiction. For what the rules are, and what is the correct application of them in a particular case, depends, in Malcolm's opinion, on how the participants in the language game, in agreement with each other, do apply them in the particular case. ("The language has the use that we give it.") I am not asserting that Malcolm's views on linguistic rules are correct, but it would certainly be unfair simply to assume contrary views while criticizing Malcolm's argument.

The following reply might be offered in Coburn's behalf. Suppose when we go to Coburn's tribe and confront them with what seem to us to be inconsistent consequences of their linguistic rules, they do not deny any of the consequences. Suppose they all say, "Oh my goodness! We never thought of that before. It certainly is a contradiction. We seem to have been in a muddle. We shall have to abandon or change part of our conceptual system, and with it, part of our form of life." Such a reaction is certainly conceivable, and in fact occurs, though perhaps it commonly occurs in less drastic form. Philosophical reflection has often had an impact on religious forms of life. But if the users of a system of concepts all agree that it was internally contradictory, and if it seems so to us too, what basis could we have for saying that it was not internally contradictory? And if in such circumstances we would have to say that the system was internally contradictory, then we cannot exclude in principle the possibility that there may be an internal contradiction in a system of concepts, even though the concepts all have a place in the thinking and lives of human beings.

This is at least very plausible; but there is one further line of defense for Malcolm which I think we ought to consider. Malcolm might agree (surely he must agree) that we sometimes feel led to revise our concepts and to say that the way we formerly spoke was conceptually unsatisfactory. But Malcolm might object to any suggestion that there was a contradiction "lurking" in our old system of concepts before we revised it.[129] The contradiction, he might maintain, did not exist in the old system of concepts, but only arose when we began to extend the old system and change it, by drawing inferences which we had not drawn before and which we were not willing to accept. When this began to happen we revised our concepts. To say that the contradiction was already there in the old system would be to say that the disturbing implications were already somehow "built into" the old system--that we were committed to them before we actually drew them; and that would be a mistake, Malcolm might claim. For in his opinion the language has (only) the use that we (actually) give it. If in using our old system of concepts we did not actually draw the disturbing inferences, then there is nothing in that system that *forces* us to draw those inferences. That is, it would be possible for people to reject those inferences and still to speak exactly as we used to speak--to play our old language game exactly as we used to play it. It was and is a possible language game, free of contradiction because the disturbing inferences are not drawn in it.

Let us apply this line of argument to Coburn's example. Coburn's tribe had a language game, a system of concepts expressing their religious form of life, in which they used the sentence (W) to make an assertion. And either they did not regard it as conceptually absurd to assert (X), or else they did not normally infer (X) from (W). (This line of argument depends on the following assumption about the concept of inference. If a linguistic community regards it as correct to assert (W) but conceptually absurd to assert (X), it follows that they do not normally infer (X) from (W). Some of them may occasionally say, "(W) implies (X)," but that must be regarded as a mistake which may occur. If people commonly say "(W) implies (X)" and do not regard it as a mistake, although they regard (W) as correct and (X) as absurd, they cannot mean the same by "implies" as we do.)

Suppose they did not regard it as conceptually absurd to assert (X). In that case, the fact that they now regard (X) as absurd does not change the fact that the assertion of (X) was not previously regarded as absurd in their language game. In this respect they now have a changed and revised language game, different from their previous language game; and the previous language game remains a possible language game. The fact that they now prefer to use a new and somewhat different conceptual system does not show that their old conceptual system was not or is not a possible conceptual system, and does not show that there was a contradiction in the old system.

Alternatively, suppose they did not accept the proposition expressed by (X), but did not make the inference from (W) to (X). We may suppose that they now do make such an inference, but this does not change the fact that they formerly had a language game in which no such inference was made.

That language game in which (X) is not inferred from (W) remains a possible language game. One might be tempted to suppose that the meaning they attached to the things they did say already contained in some way the inference from (W) to (X), although they had not actually drawn the inference. But this would be a mistake, Malcolm might argue; for what their expressions mean depends on how they actually use them.

> It may now be said: "The way the formula is meant determines which transitions are to be made". What is the criterion for the way the formula is meant? Perhaps the kind of way we always use it, the way we are taught to use it. (Wittgenstein, Philosophical Investigations, I.190)[130]

And the inference from (W) to (X) was not part of the original use of expressions in Coburn's tribe. We are supposing that they now do infer (X) from (W); perhaps it now seems to them natural and inevitable that someone who spoke as they used to speak should infer (X) from (W). But this expresses a merely contingent fact about their psychology: having been trained linguistically as they were trained, and having spoken as they used to speak, they react in a certain way to the question "Doesn't (W) imply (X)?" Perhaps any human being, so trained, and accustomed to speak so, would react in exactly the same way--but if so, that is merely a contingent fact about human nature. For we can perfectly well conceive of a group of people, trained and accustomed to speak exactly as Coburn's tribe were trained and accustomed to speak, who when confronted with the question would steadfastly refuse to make the inference from (W) to (X). Therefore the inference from (W) to (X) is not necessarily contained in their previous way of speaking, and their previous conceptual system is a possible conceptual system in that it does not necessarily give rise to any contradiction.

The argument might be generalized as follows. No established system of concepts, which is not regarded as self-contradictory by the community that uses it, contains a contradiction. For it could be shown to be self-contradictory only by drawing some inference which they (obviously) do not draw. But no such inference is already contained in their system of concepts, because they could reject any such inference without changing any of their actual use of language. Even if they do in fact accept such an inference when it is suggested to them, we can always conceive of a group of people who would speak just as they have been speaking, but who would reject any such inference.

If this argument is sound, it can be applied to the concept of a logically necessary God. If there is (as Malcolm claims) a community of people who believe in a logically necessary God, and who see no contradiction in their religious concepts, then there really is no contradiction in their concept of a logically necessary God. It is, and always will remain, a possible concept of God, and the existence of such a God is possible.

I think this is probably the most nearly impregnable defense in which Malcolm could entrench himself in the face of Coburn's attack. But I believe it is still not a convincing defense, for the following reason.

Whatever other reservations one may or may not have about the philosophy of logic on which the defense depends, there is certainly something odd about the way in which the defense appeals from the supposed actual reactions of human beings to merely conceivable reactions. The defense concedes that there may be a conceptual system or language game whose users can all be brought to agree: (1) that a certain proposition (P), which they have been accustomed to assert, implies another proposition

(Q), which they have not asserted; (2) that (Q) is self-contradictory; and (3) that therefore (P) is self-contradictory. It is further conceded that we may have reason to believe that any normal human being who had been taught to play that language game would agree to the same points; indeed we presumably would have reason so to believe, if there were many users of the language game, of widely diverse backgrounds, and they unanimously agreed to those points. The defense concedes that all these things are conceivable—as indeed they clearly are. But the defense insists that in such a case they still would not be entitled to say that the language game, as it was played before the question of inferring (Q) from (P) was raised, was self-contradictory. And in justification of this claim it is pointed out that we can at least conceive of people who had learned to play the language game, just as it was played before, but who would not agree that (P) implies (Q).

Something has gone wrong in this argument. Consider Wittgenstein's discussion of understanding the rule for generating a series of numbers.[131] Wittgenstein suggests the hypothetical case of a pupil who seems to have learned how to write out series of numbers, following rules of the form "Add n." The pupil has written out series up to 1000, to our satisfaction. But when we ask him to continue the series of even numbers, by the rule "Add 2," beyond 1000, he writes "1000, 1004, 1008, 1012," and insists this is what is meant by "Add 2" in this case. How can we say that he is wrong about what we meant? Wittgenstein asks. Did we mean that he should write "1002" after "1000"? And "1868 after 1866, and 100036 after 100034, and so on—an infinite number of such propositions?"

> "But I already knew, at the time when I gave the order, that he ought to write 1002 after 1000."—Certainly; and you can also say you meant it then;

> only you should not let yourself be misled by the grammar of the words "know" and "mean". For you don't want to say that you thought of the transition from 1000 to 1002 at that time--and even if you did think of this transition, still you did not think of other ones. When you said "I already knew at the time....." that meant something like: "If I had then been asked what number he ought to write after 1000, I should have replied '1002'."[132]

Wittgenstein denies that our having meant the series to be continued one way rather than another consists in certain thoughts having passed through our minds (certain mental events having occurred). But he agrees that a certain way of continuing the series may accord, or fail to accord, with our meaning, even though we have never continued the series that far before. The fact that a certain transition or inference has not been made before does not refute the claim that that is the transition or inference which must be made at this point if we are to proceed according to our previous meaning. According to Wittgenstein, what we meant, and therefore what is the right way of following the rule, may depend on what we would do and say if we were confronted with questions which we have not yet faced. The connection between our previous actual linguistic behavior and what we do and say in situations which have not yet arisen is a merely contingent connection; we can conceive of people who had said and done the same things as we did in the past, but who would behave quite differently from us in new situations. Nonetheless, how we would speak and act in new situations determines to some extent what we did mean in the past, and what is the right way of following our past instructions, according to Wittgenstein's account of the matter.

The case of Coburn's tribe can be considered in a similar light. We are supposing that they had been accustomed to assert (W), that they had not asserted (X), and that when they were confronted with the question whether (W) entails (X), they all immediately agreed that (W) does entail (X), although they had not noticed it before. We are supposing, further, that they all agree that (X) is self-contradictory, and therefore all now agree that (W) is self-contradictory. We are also allowed to suppose that any normal human being who had learned their language game would react as they do to the new question. Surely that settles the matter. Whether (W) implies (X) in their language game depends on how they meant (W). And how they meant (W) depended not only on how they actually behaved but also on how they would react in new situations. And the event has proved that if asked whether (W) implies (X), they would say that it does and that (W) is therefore self-contradictory. For this reason it seems quite correct, on Wittgensteinian principles, to say that (W) was self-contradictory, and that a contradiction had "lurked" in their dispositional properties by virtue of which they would infer (X) from (W) if certain questions were raised.

Of course we can conceive of people who spoke and acted just as Coburn's tribe used to speak and act but whose dispositional properties were different, so that they would not, if questioned, regard (W) as implying (X). But it seems to me that one who held the Wittgensteinian views in philosophy of language to which Malcolm is presumably appealing would have to regard the mere conceivability of such beings as irrelevant. As Wittgenstein points out, we can conceive of beings who, having learned our arithmetical language game, and having been asked to continue the series of even numbers farther than it had ever been continued before, would begin to do what we should call "adding 4," though they called it "adding 2." We will certainly maintain that would be an incorrect continuation of the series, even though we can conceive of beings to whom it would seem correct. We will certainly maintain that when a new question arises in logic which no one has ever considered before, it may have a right answer and some wrong ones; and which answer is right and which wrong depends largely, according to Wittgensteinian views, on contingent dispositional facts about human nature.[133]

The following reply might be attempted on Malcolm's behalf. "Let us agree that what is correct and incorrect in language depends on what actual human beings would say, as well as on what they do say. But it depends only on what they say and would say when the language is really in use. When Coburn's tribe (as we are supposing) all say that (W) implies (X), the language is not really in use; they are answering a misleading philosophical question, and their language is 'idling,' not 'doing work' (cf. Wittgenstein, Investigations, I:132). The fact that they say (W) implies (X) shows merely that they have misunderstood how their own language works."

I think this reply would be a mistake, for at least two reasons. (a) We are supposing that what they say in inferring (X) from (W) does do work; it does have a real influence on their life. For it leads them to revise or abandon their religious language game and form of life. (b) The claim that they must all have misunderstood their own language game is rather implausible, if we assume (as is certainly conceivable) that some of them seemed to have a profound understanding of it, and to be deeply involved in it, and that they too now have lost all interest in it because it seems to them to have been self-contradictory. Who does understand the language game, if (as we are assuming) every normal human being who had learned it would reject it as self-contradictory when confronted with the argument about (W) implying (X)?

Malcolm claims that a certain form of theistic belief is immune from philosophical refutation. He holds that there is a theistic language game in which the existence of God is treated as a necessary truth. Such belief in the existence of God could be false only if the language game is self-contradictory. But Malcolm contends that no language game which has a place in human life can be self-contradictory, and therefore that none can be proved self-contradictory by philosophical argument.

I have been arguing, against this contention of Malcolm's, that we can conceive of circumstances in which it would be most reasonable, even on Wittgensteinian principles, to say that a language game that had a place in human life was self-contradictory. If I am right, Malcolm has not shown that circumstances cannot arise in which it would be most reasonable to say that the concept of God, as a logically necessary being, is (and was) self-contradictory. Moreover, if human nature is such that all actual human beings who had learned a certain language game, and who had attended to a certain philosophical argument, would conclude that the language game was self-contradictory and reject the language game on that account—surely such a philosophical argument would constitute, for all practical purposes, a proof that the language game was self-contradictory. At least we must regard such an argument as a proof if we accept the Wittgensteinian principle that what is correct or incorrect in language, and valid or invalid in logic, depends on actual human nature and behavior.

Malcolm's argument that a language game which has a place in human life cannot be, or be proved, self-contradictory is not convincing, under any interpretation of his argument which we have considered. Therefore Malcolm seems not to have shown that belief in the existence of a logically necessary God is immune from philosophical refutation.

IV

But even if we were to suppose that Malcolm is right in maintaining that a concept which has a place in human thought and life cannot be self-contradictory, it seems to me that his argument would still give us no reason for supposing that the existence of God, rather than His nonexistence, is possible. For though it is concepts that Malcolm says are to be presumed consistent if they play a part in human life--and though the statements whose consistency he defends are affirmative existential statements--nevertheless the reasons he gives are reasons for supposing that any sentence, whose use to make an assertion has a recognized place in human life, can consistently be used to make an assertion. The argument gives no reasons for preferring affirmative existential statements to negative existential statements.

And statements which imply that there is no God do have a place in the life and thinking of human beings, just as those statements do which imply that God exists. Theists, of course, do not teach their children that it is right under any circumstances to say "God does not exist" or "There is no God," but atheists (or some of them) do teach their children so. Such sentences, used to express a loss or rejection of religious faith, certainly do occupy a very important place in many people's lives.

This point can be illustrated by a descriptive paragraph from a review of a recent autobiographical novel by Jan Myrdal.

> Then Jan as a child in his grandmother's care... tolerating the old woman's recital of the Lord's Prayer but countering with atheistic pieties under his breath: "...this is not so. There are no Gods...There is no life after death. ...All religion is superstition."[134]

The phrase "atheistic pieties" captures admirably a tone which such utterances may have. It reminds us that expressions of disbelief in God can have an importance in the life of a child (or an adult) quite analogous to the importance which expressions of belief in God can have. If the fact that people use an expression, and teach others to use it, as part of a form of life, proves that it has a correct use, then "There are no Gods" has a correct use, and young Jan was using it correctly.

So if it is true that an actual language game or conceptual system cannot contain a contradiction, and that there is actually a living conceptual system in which statements are made which imply that there exists a logically necessary God, it does not follow that the existence, rather than the nonexistence, of a logically necessary God is possible. Rather, it follows that both the existence and the nonexistence of a logically necessary God are possible, since there certainly are also conceptual systems in which it is legitimate to assert that there is no God. Of course the existence and the nonexistence of a logically necessary God would not both be possible in the same conceptual system; that is, the existence (but not the nonexistence) of such a Deity could be asserted with logical rectitude in some conceptual system, and the nonexistence of any God could be asserted with logical rectitude in other conceptual systems. But one has not given a reason for supposing that the existence of God is possible _and_ His nonexistence impossible, as one must if the modal argument is to provide grounds for believing in the existence of God.

Perhaps it is not clear that Malcolm intended to give grounds for believing that God exists. In the final paragraph of his article he insists that "it would be unreasonable to require that the recognition of Anselm's demonstration as valid must produce a conversion." Malcolm "can imagine an atheist going through the argument, becoming convinced of its validity, acutely defending it against objections, yet remaining an atheist."[135] This might suggest that Malcolm does not regard the modal argument as providing grounds for believing that God exists or for denying the truth of "There is no God."

On the other hand, Malcolm immediately goes on to say that recognizing the validity of Anselm's argument would have one effect on an atheist, which "would be that he stopped saying in his heart 'There is no God,' because he would now realize that this is something he cannot meaningfully say or think."[136] This certainly seems to commit Malcolm to the claim that Anselm's argument (the modal argument) shows that "There is no God" is not possibly true. Malcolm's argument cannot possibly sustain that claim, since his argument for the possibility of God's existence would serve just as well to show that God's nonexistence is possible.

Perhaps what Malcolm was "trying to get at" would have been better expressed if he had claimed that God's existence is necessary in some conceptual systems and impossible in other conceptual systems, all of the conceptual systems being immune from logical or philosophical refutation. I think that is not what he did maintain in his article on Anselm's arguments; but we will consider such a position in Chapter Eleven.

CHAPTER ELEVEN: CONCEPTUAL FRAMEWORKS

We have been trying to find a clear answer to the question, whether it is possible that there exists a God whose existence is logically necessary; and we have not found one. In Chapters Seven to Ten we have considered the principal contemporary arguments on both sides of the issue; and I have tried to show that they are all unconvincing. In the present chapter we will consider a very different approach to the problem.

There is an assumption which has gone unexamined in the three preceding chapters. I refer to the assumption that since it is a conceptual question whether the existence of a logically necessary God is logically possible, there must be some feature of the concept of a logically necessary God, or of our other concepts, which determines whether the existence of such a being is possible or not. We have not discovered any such feature, and perhaps we never will discover it--but, it is assumed, there is some feature of our common concepts which, if only we could find it, would force us all either to agree that the existence of a logically necessary God is possible (and therefore necessary and actual) or else to agree that the existence of such a being is impossible.

It seems to me that we have reached a point in our investigations at which it can plausibly be suggested that this assumption may be false. This suggestion is made plausible, not only by the failure of the contemporary arguments on both sides of the question, but also by the following formal point. There is a principle which usually guarantees that some feature of our conceptual system determines whether any given proposition is logically possible or not; and it can be seen that this principle will not work in the case which concerns us.

Normally the truth or falsity of a proposition of the form "It is (logically) possible that p" is determined in one of two ways. Either there is some feature of our concepts which makes it impossible for it to be the case that p, in which case "It is possible that p" is false. Or there is no such feature, in which case the absence of such a feature is itself a feature of our conceptual system which determines that "It is possible that p" is true. A determination is guaranteed, because in the absence of any other determination, "It is possible that p" is normally understood to be true.

But in the present case, "It is possible that there exists a logically necessary God," and "It is possible that there does not exist a logically necessary God" cannot both be true. The rule which guarantees a determination in most cases fails to guarantee a determination of the question which of these two propositions is true. It gives no more and no less reason for saying, "In the absence of any other determination, the existence of a logically necessary God is possible," than for saying, "In the absence of any other determination, the nonexistence of a logically necessary God is possible."

The point I am making here is very similar to a point which was emphasized many times in Chapter Nine. There I observed that a rule which says that a proposition is to be presumed logically possible unless proved impossible does not tell us, of two propositions which cannot both be logically possible, which is to be presumed possible rather than the other. Here the point is that a rule which determines that a proposition is logically possible unless there is something which determines that it is impossible cannot determine, of two propositions which cannot both be logically possible, which one is logically possible rather than the other.

This does not prove, but it seems to me to suggest, that we ought not to assume that there is something already built into our concepts which either determines that the existence of a logically necessary God is possible, or determines that the nonexistence of a logically necessary God is possible. Perhaps our system of concepts is not completely determined, not completely filled out, at this point. And in that case, perhaps the question, whether the existence of a logically necessary God is possible, ought to be understood as a question about how our system of concepts ought to be filled out, or about what concepts we ought to adopt. The suggestion is that the question, whether the existence of a logically necessary God is possible, should be understood, not as calling for a discovery about what our concepts are, but as calling for a decision about what our concepts ought to be.

In the present chapter we will discuss two theories which treat the question, whether it is possible that there exists a logically necessary God, in the way I have just suggested. The first I shall call a "quasi-Carnapian theory" because it is based on a famous essay by Rudolf Carnap but modifies or extends his conceptions, in order to apply them, as he did not, to the religious issue with which we are concerned. The second theory is based on a different philosophy of language, and finds expression in the writings of D. Z. Phillips. In the first section of the chapter I will explain some basic features of the two theories. In the second section we will discuss what bearing acceptance of a theory of this sort would have on the modal argument for the existence of God, and on the question whether the logically necessary existence of God is possible.

I

(A) In his essay, "Empiricism, Semantics, and Ontology,"[137] Carnap proposes a distinction between two kinds of questions which he calls "internal questions" and "external questions." By "internal" and "external" questions, Carnap means, respectively, questions raised inside and outside a "linguistic framework" for speaking of entities of a certain kind. If we are going to speak of a type of entities, (e.g., physical objects, or numbers), we must have a linguistic framework for doing so, including certain expressions and rules governing their use. A linguistic framework will include rules that specify procedures for determining the correct answer to questions about the existence of entities of the type in question. These procedures may be empirical, as in the case of physical objects, or purely logical, as Carnap believes to be the case with numbers. The linguistic framework for speaking of physical objects provides rules for answering by empirical investigation the question "Is there a white piece of paper on my desk?" The linguistic framework for speaking about numbers provides rules for answering by mathematical and logical proofs the question "Is there a prime number greater than a million?" These questions are internal questions, raised and answered within the context of the relevant linguistic frameworks.

The question "Are there numbers?" may be an internal question too. It may mean, "Assuming that we accept the linguistic framework for speaking of numbers, are there any numbers?" So understood, the question "Are there numbers?" can be answered trivially in the affirmative, Carnap thinks; an affirmative answer "follows from the analytic statement 'five is a number' and is therefore itself analytic."[138] But "Are there numbers?" can also be understood as an external question, "a question prior to the acceptance of the... framework."[139] Carnap believes that understood as an external question, it is just the question whether or not to accept the linguistic framework used for speaking about numbers -- that it is simply the question whether or not we ought to use that framework. Similarly, the questions, "Do physical objects exist?" "Do propositions exist?" "Do properties exist?" "Are there really space-time points?" understood as external questions, are simply questions whether or not to accept certain linguistic frameworks.

Carnap regards external questions as "practical" questions, not "theoretical"; they are "non-cognitive" in character. Philosophers "have not succeeded in giving to the external question [about the existence of numbers] and to the possible answers any cognitive content."[140] External questions call for "a practical decision concerning the structure of our language";[141] to make such a decision is not to make an assertion about what is the case, but only to choose how to speak. Therefore Carnap holds that an answer to an external question can be justified only on pragmatic grounds. "It can only be judged as being more or less expedient, fruitful, conducive to the aim for which the language is intended."[142] Of an answer to an external question we must not ask "Is it true?" but "Is it useful?"

Carnap does not apply these ideas to the question of God's existence. Indeed, it is doubtful whether "Does God exist?" is formally qualified to be treated as an external question, if we follow the letter of Carnap's definitions. His essay is primarily concerned with the ontological status of abstract entities. It is clear that he means to be giving an account of what certain other philosophers would call "ontological commitments" when he speaks of the "introduction" or "acceptance" of a linguistic framework for a kind of entities. The philosophical issue to which he is addressing himself is an issue about the existence of certain *kinds* of entities. The two essentials for the introduction of a framework, he says, are (1) "a general term ... permitting us to say of any particular entity that it belongs to this kind (e.g., 'Red is a *property*', 'Five is a *number*')"; and (2) variables ranging over entities of this kind.[143] According to a strict interpretation of Carnap, therefore, "Does there exist an F?" cannot be an external question about the acceptance of a linguistic framework for speaking of F's unless "F" is a kind-name. And although it is perhaps not clear that "God" cannot be understood as a kind-name, it is at least doubtful that it can.

I think Carnap's terminology can readily be adapted, however, to express a conception of the nature of the question whether God exists. The use of the term "linguistic framework" can be extended very naturally so that we can speak of linguistic frameworks for talking about individual entities (such as God) as well as for talking about kinds of entities. Indeed, I do not see why we could not speak of linguistic frameworks connected with terms (such as "necessary") which are not supposed to designate *entities* at all. In each case the linguistic framework would include certain expressions and rules governing their use.

A linguistic framework for speaking about God would include (at least) the word "God" and rules for its use. If we are dealing with the concept of a necessarily existing God, the rules would presumably be such that "God exists" entails "It is necessary that God exists." If we assume, further, that the use of "necessary" is governed by a rule based on the axiom "$\sim Np \supset N\sim Np$," we will have a linguistic framework in which "God exists" is either necessarily true or necessarily false, and must be true if it is possibly true. Thus we have, as it were, built into the linguistic framework the first part of the modal argument for the existence of God; and we are faced again with the question whether we are entitled to assume that the existence of God is possible.

It would be possible, of course, to adopt a linguistic framework for speaking about God which provided no way of determining whether or not God's existence is possible; but such a framework would not be likely to pass the test of utility. Suppose, then, that we simply incorporate it as a rule in our linguistic framework, that "God exists" is possibly true. Now we have constructed a linguistic framework in which all the assumptions of the modal argument for the existence of God hold good. The existence of God is, so to speak, built into this framework.

Our conception of linguistic frameworks permits the existence of God to be built into a linguistic framework, just as the existence of numbers is built into a linguistic framework. So let us assume a linguistic framework for speaking about God in which all the assumptions of the modal argument for God's existence hold good. The question "Does God exist?" ("Is there a God?") can now be construed either as an internal or as an external question. The internal question "Does God exist?" must be answered in the affirmative, on logical grounds, as we have seen. But the external question "Does God (really) exist?" is the question whether or not to accept this linguistic framework. Presumably it is the external question that is in dispute between theists and atheists. And according to the quasi-Carnapian position which I am developing here, the external question is not a cognitive or theoretical question at all, but a practical question—not a question of truth or falsity, but only a question of whether or not to behave linguistically in a certain way.

(B) Beside this Carnapian or quasi-Carnapian approach to the question of the existence of God we may set a theory which is fundamentally similar, although expressed in terms of a different type of philosophy of language. This is a theory, of Wittgensteinian inspiration, advanced by D. Z. Phillips, in his book on The Concept of Prayer.[144] In this theory the concepts of a "language game" and a "form of life" and of "the depth grammar of the concept to be investigated" take the place of the concept of a "linguistic framework." This difference reflects the fact that Phillips is concerned with natural languages rather than with the artificial, deliberately created languages which Carnap has in view. Phillips is not dealing with languages which we make up as we choose; nonetheless, we shall see that he recognizes that it is possible (at least sometimes) to reject a form of life or refuse to play a language game--just as, on the Carnapian view, it is possible to reject, and refuse to use, a linguistic framework.

According to Phillips, in order to know what kind of reality a thing has, and what is the appropriate method for establishing whether it exists or not, "one must determine the depth grammar of the concept to be investigated."[145] In investigating the depth grammar of physical object concepts we find that it is appropriate to follow certain methods of empirical investigation to find out whether such and such a physical object exists. But there are many different conceptual categories, having different depth grammars. Where there are different depth grammars there may be different methods of establishing existence. One method of investigation would be appropriate if we wanted to find out whether there are unicorns, and a different method if we wanted to establish whether there exist numbers, and still other methods if we ask whether "magic, or electrons, exist."[146] Some of these methods are empirical; some are not. Existence questions asked in accordance with the methods of investigation implicit in the depth grammar of a concept correspond to the internal questions of the Carnapian scheme.

Now if we were to construe the depth grammar of the concept of God along the same lines as the "theistic linguistic framework" we spoke of in section I, we should say that certain methods for establishing whether God exists are incorporated in the depth grammar, that these methods are not empirical but purely logical, and that they yield an affirmative answer to the question "Does God exist?" Phillips does not distinguish sharply between this position and the claim that the question "Does God exist?" simply does not arise in the theistic language game because no meaning at all has been assigned to "God does not exist." That is, it is not clear to me whether Phillips thinks that "God does not exist" is completely meaningless or necessarily false in the theistic language game.[147] In either case he certainly regards the existence of God as built into the depth grammar of the concept of God, built into the theistic language game. The language game makes no allowances for any possibility of God's non-existence. For every conceivable situation of life, the responses that are appropriate according to the rules of the theistic language game are responses that imply faith in God; Phillips thinks there is no conceivable situation in which a response which implies disbelief in God would be appropriate according to the rules of the theistic language game.

But Phillips admits that someone could understand all this and still deny the existence of God. He discusses Malcolm's article on "Anselm's Ontological Arguments" at some length, and agrees with Malcolm that an atheist could become convinced of the validity (and soundness, I presume) of the ontological argument and yet remain an atheist because he is not "touched religiously."[148] But he will not join Malcolm in denying that such an atheist could still "say in his heart, 'There is no God'. ...Of course he can say it, just as...the believer says, 'There is a God'. The important question in each case concerns the meaning of the words."[149]

"There is no God" looks like "There is no snow in Ithaca today" and "There is no prime number between seven and nine." The latter two sentences would normally be used, respectively, within a weather language game and an arithmetical language game, and would be meant to be verified or supported by procedures determined by the rules of those language games. If we interpret "There is no God" according to its resemblance to these expressions, or according to what Phillips calls its "surface grammar," we will construe it as made within the language game that is ordinarily played with the word "God," and as intended to be supported by methods determined by the rules of that language game. As we have seen, however, Phillips believes that an atheist who understands the theistic language game will recognize that the rules of the game do not authorize any procedures by which the assertion, "There is no God," could be supported. Therefore if such an atheist says, "There is no God," he cannot mean this statement to be understood, according to its surface grammar, as made within the theistic language game. The depth grammar of his assertion, its real meaning, must be something different from its surface grammar.

What can such an atheist really mean by saying, "There is no God"? What is the depth grammar of that sentence as he uses it? He must be using the expression "There is no God," not to make an assertion in the theistic language game, but to express his rejection of the theistic language game and form of life as a whole. Phillips does not say this very explicitly, but I think it is clear that this is the only sense in which he believes that the well-instructed atheist can deny the existence of God.

Phillips does say that "the possibility of the unreality of God does not occur within any religion, but it arises in disputes between religions."[150] As he sees it, there are a number of competing religions (religious forms of life), as well as nonreligious forms of life such as atheism and agnosticism; each of these forms of life is the basis of a language game. (Phillips allows that atheism and agnosticism are language games which are played.[151]) Adherents of each of these forms of life reject some or all of the others; and rejection of theistic forms of life may be expressed by denying the existence of God.

The analogy with the Carnapian distinction between internal and external questions is clear. "There is no God" (or "Is there a God?"), interpreted as suggested by its surface grammar, corresponds to the internal question; it occurs within a religion or form of life or language game in much the same way as the internal question occurs within a linguistic framework. "There is no God" (or "Is there a God?"), understood as Phillips thinks it ought to be understood, corresponds to the external question; it is concerned with the rejection or acceptance of a form of life or language game, just as the external question is concerned with the rejection or acceptance of a linguistic framework. Phillips agrees with the quasi-Carnapian view presented in section I, on at least the following two cardinal points. (1) The theistic conceptual scheme (linguistic framework or language game) makes no provision for any possibility of God's nonexistence; the existence of God is built into it. (2) Nevertheless, the nonexistence of God may be asserted, intelligibly and without contradiction, if that assertion is meant simply as a rejection of the theistic conceptual scheme (linguistic framework or language game).

Asserting the nonexistence of God, in this latter sense, is rejecting an activity, a form of life.

II

In this section we will first discuss (A) what bearing the two theories explained in the previous section have on the question whether the modal argument for the existence of God is sound. Then we will consider (B) in what sense, if any, external questions of religion can have answers that are true according to the two theories. Finally we will take up (C) the question of what reasons could be offered to justify an answer to a religious external question. I will make some critical comments, but I will not attempt to offer an alternative theory of my own.

Some terminological points should be explained here. "External question" will be used in the context of Phillips's theory as well as the quasi-Carnapian theory, to refer to a question such as "Does God exist?" when this is meant as the question whether to accept or reject a language game and form of life. I will sometimes refer to linguistic frameworks and language games indifferently as "conceptual frameworks." This latter term is meant to be neutral as between Carnap's and Phillips's philosophies of language, and not to convey any commitment to either when they disagree.

(A) If we assume that it is an external question whether it is possible that there exists a logically necessary God, it follows that the modal argument for the existence of God can be regarded as sound, but only within a certain theistic conceptual framework. It also follows that the argument does not in any important sense support theistic belief, but only exhibits the structure of a certain religious conceptual framework. This can be explained as follows.

If our concept of God determines that either His existence or His nonexistence is necessary, but does not determine which it is, then our theological conceptual framework is incomplete or partially undetermined. We can complete it in two different ways, yielding two different conceptual frameworks. We can form a completed conceptual framework either by assuming that God's existence is possible or by assuming that God's nonexistence is possible. If we assume that God's existence is possible (and therefore necessary), we have one conceptual framework in terms of which all of life's situations can be thought of and discussed. Whatever is, or could be, the case is, or would be, known by an omniscient necessary being; everything that is has some relation to His will, etc. If we assume, on the other hand, that God's nonexistence is possible (and therefore necessary), we have another conceptual framework in terms of which all of life's situations can be interpreted. Whatever is, or could be, the case is not, or would not be, known by a necessarily existing God, etc.

The essential point is that the completed framework includes an assumption of the possibility of God's existence or an assumption of the possibility of God's nonexistence. In the former case, God's existence can be proved, within the framework, by the modal argument for the existence of God. In the latter case, His nonexistence can be proved, within the framework, by a modal argument. But the momentous issue, whether or not to believe in a necessarily existing God, cannot be regarded as settled by either of these arguments. For this issue cannot fairly be interpreted as a question internal to one or the other framework; it is rather the external question, whether to accept or reject a conceptual framework in which God's necessary existence can be proved.

The modal argument for the existence of God can thus be regarded as a sound argument, if it is interpreted simply as showing that in a certain conceptual framework the internal question, "Does God exist?" must necessarily be answered in the affirmative. But the modal argument does not succeed in showing that we ought to believe that there is a necessarily existent God, because the external question can still be raised, whether we ought to accept that theistic conceptual framework.

(B) If we adopt such a theory as Phillips's or the quasi-Carnapian theory, can we say that answers to the external question "Does God exist?" are true or false? There is some disagreement between the two theories on this point, but the exact extent of the disagreement may be difficult to establish. According to the quasi-Carnapian theory, external questions, including external questions of religion, have no cognitive content, because the meanings of the terms involved in an external question do not determine any empirical or logical decision procedure for answering the external question. External questions thus fail a Carnapian test for cognitivity. The quasi-Carnapian theory views all external questions as practical, not theoretical; and answers to them are regarded as neither true nor false, but only more or less useful.

But Phillips does regard questions that arise between some conflicting forms of life as questions about "the truth." One can ask "which religion is the true one,"[152] "what...constitutes true prayer," "who the true God is."[153] If some people adhere to certain religious forms of life which Phillips repudiates, "they would say that I was blind to the truth, and I should say the same of them."[154]

On the other hand, Phillips regards questions about the truth of a religious form of life as in some sense nontheoretical; and he appears to say that this is because they are questions about what to care about and how to behave. That is, he comes close to saying that they are practical questions. "Belief in the true God is not like belief in a true theory," he says. "To believe in the former case is synonymous with worship."

> To say, 'This is the true God', is to believe in Him and worship Him. I can say, 'This theory is true, but I couldn't care less about it', and there is nothing odd about what I say. On the other hand, if I say, 'This is the true God, but I couldn't care less', it is difficult to know what this could mean.

"Because of the nature of truth in this context," Phillips denies that it is his job as a philosopher "to decide on anyone's behalf who the true God is."[155]

It would be easy to represent the disagreement between Phillips and the quasi-Carnapian theory as purely verbal; for Phillips does not hold that external questions of religion meet Carnapian standards of cognitivity. We might be tempted to say that Phillips just does not use the words "true" and "false" and their cognates according to Carnapian standards. But this would be a mistake. There is an important difference in attitude here (one might almost say, a difference in moral attitude). The Carnapian attitude toward disagreements about external questions is explicitly an attitude of tolerance.[156] The Carnapian theorist does not regard an external question as having one answer which everyone ought to accept (except insofar as everyone finds it useful). Phillips plainly does not advocate that kind of tolerance in regard to religious external questions; he does view a religious external question as having one answer which everyone ought to accept. He seems to feel it a demand of personal integrity to find and accept that answer; to reject it would be in some sense to respond inadequately to reality.

Perhaps Phillips could argue that most theistic and atheistic language games and forms of life involve certain attitudes toward the possibility of their own rejection. And those attitudes are not compatible with the kind of indifference or tolerance towards disagreements in religious external questions which is advocated by the quasi-Carnapian theory. This is not a conclusive argument for the attitude which Phillips favors, of course. One might reply that the quasi-Carnapian theory, with its concepts of cognitive content, truth, and falsity, and its associated attitudes, expresses a form of life which is incompatible with certain other forms of life, including most theistic and atheistic ones. And we would then have to decide for or against that form of life.

It should be made clear that I am not ascribing to Phillips the view that every external question has one answer which everyone ought to accept. Most of the external questions which Carnap actually discusses in "Empiricism, Semantics, and Ontology" concern the existence of abstract entities, such as numbers, propositions, and properties; and Phillips does not discuss these questions. The Carnapian indifference or tolerance seems much more plausible as applied, e.g., to the question of whether to accept a conceptual framework in which irrational numbers must be said to exist, or some alternative framework, then it does as applied to religious external questions. Likewise, such indifference seems less plausible as applied, e.g., to the question whether to accept our normal framework of psychological concepts, or to replace it with a framework in which only physical object concepts are used for thinking and talking about human behavior, and the concepts of thought, intention, reasons, etc. do not occur.

(C) There is also disagreement between the quasi-Carnapian theory and Phillips about the kinds of reasons which may be used to support an answer to an external question of religion. According to the quasi-Carnapian theory, the external question about God's existence is a practical question, and, as such, a question of utility. Whether or not we ought to accept the theistic framework depends on whether it will best serve our purposes to accept it. Some discussion might arise about what purposes the theistic framework must serve, in order that its acceptance may be justified. Carnap says that the acceptance of a linguistic framework "can only be judged as being more or less expedient, fruitful, conducive to the aim for which the language is intended" (emphasis not in original).[157] Judged by this standard, the theistic framework is likely to prove acceptable. For the aim for which it is intended is the practice and propagation of a way of life characterized by loyalty to God. And it seems probable that a linguistic framework in which it is a necessary truth that God exists would be conducive to that aim. Certainly it would be more conducive to that aim than a conceptual framework in which it is a necessary truth that God does not exist.

Obviously this justification of the acceptance of a linguistic framework in which God's existence is logically necessary will not produce a mass conversion of atheists and agnostics. Quite apart from any misgivings one may have about the use of pragmatic arguments in this context, the fact that acceptance of the theistic framework is expedient, fruitful, and conducive to the aim of leading a life of loyalty to God is not a reason for anyone to accept the framework unless he has some inclination to lead such a life. There are people who do not believe in God and who have no desire at all to lead a theistically oriented life; they would have, apparently, no reason for adopting the theistic framework. Indeed, insofar as they have it as a definite purpose or aim to practice and propagate a nonreligious way of life, they may have reason to adopt an atheistic linguistic framework (in which God's existence is impossible) as conducive to their goal.

In fairness to Carnap we must remind ourselves again that the external questions about which he wrote had to do mostly with the existence of such entities as numbers, propositions, and properties. He makes it clear that he is talking about linguistic systems which have as their basic purpose "scientific progress"[158]--the advancement of research in the empirical sciences and in the formal studies of logic, mathematics, and semantics. He is assuming, therefore, that the pragmatic criterion by which answers to the external questions he discusses must be judged is, "Will acceptance of this linguistic framework help or hinder the progress of science?" I think it is clear that this criterion cannot be used to settle religious external questions. It is debated what effects, if any, the acceptance of religious conceptual frameworks has on the advancement of science. And plainly any effects which religious discourse may have on "scientific progress" are quite incidental to the main purposes of religious discourse. To judge a religious commitment primarily in terms of its effects on studies in the empirical and mathematical sciences, is to fail to take it seriously as a religious commitment.

Perhaps the whole project of trying to assess the merits of answers to religious external questions on the basis of usefulness must be abandoned. Shall we accept and reject religious conceptual frameworks on the basis of their tendency to promote world peace, or to preserve respect for the family or to make one feel good? Shall we encourage a man to adopt a religious conceptual framework because he believes a certain religious affiliation would be helpful to his business as a salesman or funeral director? Or ought we urge a man to abandon a religious conceptual framework if he thinks his religion may be causing social discrimination against him?

Phillips sees quite clearly that religious commitment is not supposed to be useful, but is an end in itself. "There is no reward for belief; divinity is its own justification."[159] Accordingly he does not suggest that the decision to accept or reject a religious form of life ought to be based on pragmatic grounds, in the sense of grounds of usefulness. But Phillips does suggest three bases on which he thinks one might properly decide against a religious form of life and language game.

(1) If a language game is internally inconsistent, that constitutes a reason for rejecting it. "The atheist may say that the idea of a necessary being is self-contradictory."[160] (Phillips is not endorsing the atheist's charge; quite the contrary. But he evidently regards considerations of consistency as relevant to religious external questions.)

(2) One may reject religion because one cannot see any point to it.

> I am thinking of atheism as the recognition that religion means nothing to one; one is at a loss to know what to make of prayer, worship, creeds and so on.[161]

Phillips regards this form of atheism as "the most genuine indication of what atheism is."[162] He recognizes also a kindred form of agnosticism.

> If, when the agnostic says, 'I don't know whether there is a God or not', what he means is, 'I do not know whether there is anything in belief in God or not; I do not know whether it means anything', there is no philosophical objection to his position.[163]

Phillips fails to make clear in just what sense such atheists and agnostics see no meaning in the religious language game. He insists that their position cannot be refuted by philosophy; yet it is also clear that he believes philosophical analysis can show the meaning or the point of a religious language game.[164] In another place he speaks of someone who "does not see the point of religion as the believer does, since for the believer seeing the point of religion is believing," but who "can see what religion is supposed to do and what it is supposed to be."[165] Phillips seems to have in mind the position of someone who may (or may not) understand what religion means to religious people, but who feels that it means nothing to him personally, in the sense that he sees no value in it.

(3) One might see no value in religion; but one might also see something hateful or detestable in a certain religious form of life, precisely because one understood what it meant to others. Phillips passes a condemnatory judgment on religious forms of life in which it is believed that God commands "wherever he has the power to do so," or "that truth is whatever the Church teaches," when he indicates his readiness to say that the adherents of such views are "blind to the truth."[166] He has much to say in a similar vein about rebellion against religion.

> It is because many have seen religion for what it is that they have thought it important to rebel against it.... The rebel stands on the threshold of religion seeing what it must be like, but saying, 'I do not want to be like that. I rebel against it all.'[167]

Presumably the reasons for accepting a religious form of life would be the converse of the reasons for rejecting it. One would have reason to accept a religious language game and form of life if one found no internal contradiction in it and saw great value in it. Aside from considerations of consistency, Phillips does not suggest any clear-cut criteria on which he thinks such decisions ought to be based. In fact he emphasizes that the methods available for answering questions about the truth of a religious form of life are not objective, public, or such that we can expect mankind generally to come to agreement on these questions. As he puts it, "In morality and religion truth is a personal matter."[168] There is a "personal element in theology." Within a theology, a religious statement may be proved or refuted; but in deciding between conflicting theologies, one is thrown back on this "personal element."[169]

I think this does not mean that Phillips believes that answers to external questions of religion are, or ought to be, based solely on mere liking and disliking for forms of life. It appears to be more a matter of the moral attractiveness or unattractiveness that a given form of life seems to one to have or lack. "Moral and religious judgements merge into one another," Phillips says.[170] What reasons can be given for such judgments? Phillips appears to say that the only way in which one could give reasons for such a judgment is by simply trying to make clear what is involved in the conceptual framework in question. He writes,

> One might say, for example, that the Hebrew post-Exilic beliefs in God are deeper than the pre-Exilic ones. But what does 'deeper' mean in this context? One could answer only in terms of a comparison of the respective ideas of God. If someone thinks, despite such a comparison, that the pre-Exilic ideas are the deeper conceptions of God, there is little more one can say, except perhaps to appeal to him to look again.[171]

Phillips's views on the ways in which external questions of religion are, and ought to be, decided are plainly more in tune with the real interests of religious belief and doubt and disbelief than are the views I ascribed to the quasi-Carnapian theory. (It would be unfair to ascribe the latter to Carnap himself.) This does not mean that I think Phillips's position is adequate; I think it is not. In particular, I am not convinced that the very few kinds of reasons which Phillips allows are the only kinds which are, and ought to be, regarded as relevant to external questions of religion. But that is another story, and a long one.

CONCLUSION

The principal conclusion of this dissertation must be that it has not been proved that the modal argument for the existence of God adds anything to whatever grounds there may be for believing in the existence of God.

We have not found any flaw in the formal structure of the modal argument. Its conclusion may be derived from its premises by a formally correct proof in any one of several systems of modal logic. And these systems of modal logic are probably valid under the intended interpretation of the modal terms "necessary" and "possible."

Neither does the modal argument fail because of falsity of the first premise (the premise that "God exists" entails "It is necessary that God exists.") It is possible to construct a concept of God (at least in some suitably broad sense of "concept") for which this premise is true. We were unable, however, to settle the question whether Premise I is entailed by really essential aspects of Jewish and Christian theism.

Neither has the second premise of the argument been proved false (the premise that it is possible that God, conceived of as a logically necessary being, exists). We considered the principal contemporary arguments for the falsity of this premise, and they did not appear convincing.

The chief weakness of the modal argument for the existence of God lies in the difficulty of supporting the second premise by an argument convincing enough to bear the weight that hangs from that premise. In considering presumptive arguments for the possibility of the existence of a logically necessary God, we found no more reason for presuming that the existence of such a God is possible, then for presuming that His nonexistence is possible. Norman Malcolm's argument that the concept of God cannot be self-contradictory also turns out not to give any reason for supposing that the existence, rather than the nonexistence, of a logically necessary God is possible.

Finally, we have seen that if the question, whether it is possible that there exists a logically necessary God, is regarded as an "external question," in the sense explained in Chapter Eleven, then the modal argument for the existence of God is a sound argument showing that the existence of God is logically necessary *within* a certain conceptual framework. But that is not a justification of belief in the existence of God. For the issue between those who believe, and those who do not believe, that there exists a logically necessary God, is about the external question, whether or not to accept the conceptual framework in which the modal argument is a sound argument. Reasons might be offered to justify the acceptance of this framework, and *they* would be reasons (good or bad) for believing in the existence of God; but the modal argument for the existence of God would not be among them.

APPENDIX: A FORMAL POINT

It may be of interest to point out that a modal argument for the existence of God can be framed which has as its only premise "MNg" ("It is possible that it is necessary that God exists"). The proof requires a system of modal logic no stronger than System A. (I will use "$MNp \supset Np$" as an alternative form of Axiom 4 to shorten the proof. "$MNp \supset Np$" is often used as an alternative form of Axiom 4, and can easily be proved in System A.[172]) The proof follows.

(1)	MNg	Premise.
(2)	$MNg \supset Ng$	Substitution in "$MNp \supset Np$". (See above)
(3)	Ng	(2), (1), modus ponens.
(4)	$Ng \supset g$	Substitution instance of Axiom 2.
(5)	g	(4), (3), modus ponens.

Of course, this argument is no more likely to succeed than Modal Argument A or Modal Argument B, because the one premise on which it depends is the same proposition over which they seem to come to grief. We have seen that the proposition that the logically necessary existence of God is possible must be defended in order to defend Premise II of the modal argument for the existence of God. And it is the unlikelihood that this proposition can be defended in a way that would not render the modal argument superfluous, which causes the modal argument apparently to fail.

NOTES

1. Different interpretations of necessity will be considered in the dissertation; but these differences are not marked by the different forms, "it is (a) necessary (truth) that" and "necessarily," which are used interchangeably.

2. Charles Hartshorne, The Logic of Perfection and Other Essays in Neoclassical Metaphysics (Open Court Publishing Company, La Salle, Illinois, 1962), pp. 49-57.

3. Norman Malcolm, "Anselm's Ontological Arguments," The Philosophical Review, Vol. LXIX (1960), pp. 41-62.

4. This title is recommended by Hartshorne, op. cit., p. 50.

5. For instance, they are contained in all the systems discussed by E. J. Lemmon in "Is There Only One Correct System of Modal Logic?" The Aristotelian Society: Supplementary Volume XXXIII (1959), pp. 30-31.

6. Hartshorne, op. cit., pp. 50-51.

7. St. Anselm's Proslogion with A Reply on Behalf of the Fool by Gaunilo and The Author's Reply to Gaunilo: Translated with an Introduction and Philosophical Commentary by M. J. Charlesworth (Oxford at the Clarendon Press, 1965), pp. 170-171. Charlesworth reproduces the critical Latin text established by Dom. F. S. Schmitt, O.S.B., on pages facing his English translation. I am responsible for this translation from the Latin; however, I am indebted to the translation of S. W. Deane, Saint Anselm: Basic Writings: Proslogium, Monologium, Gaunilon's On Behalf of the Fool, Cur Deus Homo, second edition (Open Court Publishing Company, LaSalle, Illinois, 1962), pp. 154-155. I am probably imposing a certain amount of simplification on Anselm's modal logic in interpreting it as I do. The most recent study of Anselm's modal logic (The Logic of Saint Anselm, by Desmond Paul Henry (Oxford at the Clarendon Press, 1967), pp. 134-180) suggests (pp. 145-147) that Anselm distinguished, in the Proslogion, between 'can be' (potest esse) and 'can be thought or conceived to be' (potest cogitari), and that these formed a sort of hierarchy of modalities. Perhaps Anselm made here a distinction analogous to that which some philosophers today would make between "ontological (or factual) possibility" and "logical possibility." To introduce this hierarchy of modalities into our statement of Modal Argument B, however, would only complicate unnecessarily our understanding of the argument. I remain convinced that Modal Argument B (or possibly Modal Argument A) represents the argument which Anselm had almost succeeded in expressing clearly in the passage that I quote. This passage, which has been overlooked by most recent commentators other than Malcolm, is not discussed in Henry's treatment of Anselm's modal logic.

8. Anselm, pp. 168-169 in Charlesworth, _op_. _cit_., and p. 154 in Deane's translation.

9.

(1)	$Np \supset p$	Axiom 2.
(2)	$\sim p \supset \sim Np$	(1), transposition.
(3)	$\sim Np \supset N\sim Np$	Axiom 4.
(4)	$\sim p \supset N\sim Np$	(2), (3), hypothetical syllogism.

10. In the following four-valued matrix, which shows that Axiom 4 cannot be proved in System B, 1 and 2 are the designated values.

		Values of "q"					
	$p \supset q$	1	2	3	4	$\sim p$	Np
Values	1	1	2	3	4	4	1
of	2	1	1	3	3	3	3
"p"	3	1	2	1	2	2	4
	4	1	1	1	1	1	4

This matrix satisfies the complete basis of System B. It satisfies Axioms 1, 3, and 5; and it can readily be seen, by replacing the designated values in the matrix by "true," and the undesignated values by "false," that it satisfies the classical non-modal propositional calculus. (It also satisfies Axiom 2.) But it does not satisfy Axiom 4, because the value of Axiom 4, according to the matrix, is 3 when the value of "p" is 2. What this shows, in effect, is that it is possible to find a consistent interpretation under which System B is valid but Axiom 4 is not; and therefore Axiom 4 cannot be contained in System B.

11. On the bases for M, S4, and S5, see Lemmon, "Is There Only One Correct Modal Logic?", pp. 30-31, and A. N. Prior, _Formal Logic_, second edition (Oxford at the Clarendon Press, 1963), pp. 311-313.

12. In this matrix, again, 1 and 2 are the designated values.

		Values of "q"					
	$p \supset q$	1	2	3	4	$\sim p$	Np
Values	1	1	2	3	4	4	1
of	2	1	1	3	3	3	3
"p"	3	1	2	1	2	1	4
	4	1	1	1	1	1	4

This matrix differs from the matrix in note 9 only in that the value of "$\sim p$" is 1 rather than 2 when the value of "p" is 3. This matrix satisfies the complete basis of System A, including Axiom 4. It does not satisfy Rule 1, however, given that everything provable in the classical non-modal propositional calculus (PC) is a theorem of the system to which Rule 1 belongs. For "$p \supset (\sim p \supset q)$," for instance, is provable in PC; but it has the value 2 when "p" has the value 3 and "q" has the value 2 or 4. 2 is still a designated value; so the matrix still satisfies this tautology of PC. But if from "$p \supset (\sim p \supset q)$" we infer "$N(p \supset (\sim p \supset q))$," as Rule 1 would entitle us to do, the latter will have the undesignated value 3 when the former has the designated value 2. What this shows, in effect, is that it is possible to find a consistent interpretation under which System A is valid but Rule 1 does not preserve validity.

13. There is no need to offer proofs here of these relations between the better known systems. They can readily be found by means of the method of semantic tableaux explained by Saul Kripke in "Semantical Analysis of Modal Logic I: Normal Propositional Calculi," *Zeitschrift für mathematische Logik und Grundlagen der Mathematik*, Band IX (1963), pp. 67-96.

14. This is Kripke's term: *ibid*.

15. See Clarence Irving Lewis and Cooper Harold Langford, *Symbolic Logic*, Second Edition (Dover Publications, Inc., New York, 1959), p. 498.

16. See Anthony Kenny, "God and Necessity," in *British Analytical Philosophy*, edited by Bernard Williams and Alan Montefiore (New York, The Humanities Press, 1966), pp. 131-151; and John Hick, "A Critique of the 'Second Argument,'" in *The Many-Faced Argument: Recent Studies on the Ontological Argument for the Existence of God*, edited by John Hick and Arthur C. McGill (The Macmillan Company, New York, 1967), pp. 341-356.

17. Benson Mates, *Stoic Logic* (University of California Press, Berkeley and Los Angeles, 1961), pp. 5, 36ff.

18. For a somewhat fuller treatment of these temporal interpretations of modality, see A. N. Prior, "Logic, Modal" in *The Encyclopedia of Philosophy*, Paul Edwards, Editor in Chief (The Macmillan Company and the Free Press, New York, 1967), Vol. V, pp. 540-541.

19. Hick, *op. cit.* (note 16).

20. *Ibid*.

21. Malcolm, *op. cit.* (note 3), pp. 55 and 45.

22. Hartshorne, *op. cit.* (note 2), p. 53.

23. This line of argument for the validity of "$\sim Np \supset N \sim Np$" under an interpretation of "N" in terms of truth-by-virtue-of-meanings is familiar. See, e.g., Rudolf Carnap, "Modalities and Quantification," *Journal of Symbolic Logic*, Vol. XI (1946), pp. 34-36.

24. This objection is based on some discussion by Lemmon, *op. cit.* (note 5), p. 37. Lemmon states an interpretation in terms of truth-by-virtue-of-meanings, but his discussion of it is contaminated by forms of expression appropriate only to an interpretation in terms of provability.

25. Of course it is known that there are certain formulas of (e.g.) quantification logic such that neither can they be proved in quantification logic nor can it be proved in quantification logic that they are unprovable. (For referenceson this subject see, e.g., Willard Van Orman Quine, Methods of Logic, revised edition (Holt, Rinehart, and Winston, New York, 1964), pp. 189-191.) But I am not concerned here with provability or unprovability in a particular system; what is at issue is whether there may be no way at all either of proving that a certain proposition is true by virtue of meanings or of proving that it is not so provable.

26. I am going to speak of truth and validity "about" rather than "in" possible worlds. My reason for this can be explained as follows. Suppose there is a possible world w which contains no plants and no being who imagines or conceives a plant. It might be claimed that in w the proposition "If there are many flowering plants, then there are many flowering plants" does not exist, or has no meaning, and so is neither true nor false. But that proposition is certainly true (indeed valid) about w (and its antecedent and consequent are both false about w). That is, in the actual world (whatever may be the case in w), the proposition "If there are many flowering plants, then there are many flowering plants" may be asserted truly about w. I am not asserting that that proposition would not be true in w, but in this chapter I want to avoid any objection that might be based on such a view, and so I will speak of truth and validity "about" rather than "in" possible worlds.

27. Kripke, op. cit. (note 13).

28. See Lewis and Langford, op. cit. (note 15), p. 498.

29. Kripke, op. cit. (note 13).

30. See, e.g., Hartshorne, The Logic of Perfection (see note 2), p. 62.

31. See, e.g., David K. Lewis, "Counterpart Theory and Quantified Modal Logic," The Journal of Philosophy, Vol. LXV, no. 5 (March 7, 1968), pp. 113-126.

32. I am not claiming that all Anselm intended to prove in this passage is that God's existence could not be contingent; I am not attempting a historical or exegetical study of Anselm. There has been some controversy as to whether this passage was regarded by Anselm as an independent proof of the existence of God, or whether, having established God's existence (to his own satisfaction) in the second chapter of the Proslogion, Anselm means only to add that God exists "so truly" that His non-existence is inconceivable. In any case, the two most important points for our purpose are clear. (1) The logical structure of the modal argument for the existence of God is not plainly expressed in this passage. (2) Anselm does give reasons here for believing that God's existence could not be contingent.

33. The subjunctive mood of "possit" indicates a subordinate clause in indirect discourse. Anselm is saying, therefore, that it is conceivable that: there exist something-which-cannot-be-conceived-not-to-exist. He is not saying that there is an x such that (1) x can be conceived to exist

and (2) x cannot be conceived not to exist. That x cannot be conceived not to exist is part of what this sentence says is conceivable, not part of what it says is the case. Deane's and Charlesworth's translations fail to bring out this point.

34. Anselm, Proslogion, ch. III. I am responsible for the translation, but I have borrowed freely from the translations by Charlesworth and Deane cited in note 7. Latin text in Charlesworth, op. cit., p. 118.

35. I translate from the text established by F. S. Schmitt, O.S.B., reproduced in Obras Completas de San Anselmo, ed. P. Julian Alamida, O.S.B., Vol. I (Biblioteca de Autores Cristianos, Madrid, 1952), p. 230.

36. Ibid., p. 228.

37. I translate from the text as found in Charlesworth, op. cit., p. 116.

38. Charlesworth appears to interpret Anselm in this sense. "God, argues St. Anselm here, cannot exist in a contingent way, for to exist necessarily (i.e. for a thing to exist in such a way that it cannot be thought not to exist) is greater than existing contingently; so that if 'that than which nothing greater can be thought' were to exist contingently it would not be as great as it would be if it existed necessarily, and so would not be, precisely, that than which nothing greater can be thought." (Charlesworth does not italicize "it.") Op. cit. (note 7), p. 73.

39. Terence Penelhum, "On the Second Ontological Argument," The Philosophical Review, Vol. LXX, No. 1 (January, 1961), p. 89.

40. Ibid., p. 91. Penelhum thinks that this doctrine "can be supported by argument in the case of the assertion that God exists."

41. Norman Malcolm, op. cit. (note 3), p. 46. Malcolm's emphasis.

42. Raziel Abelson, "Not Necessarily," The Philosophical Review, Vol. LXX, No. 1 (January, 1961), p. 69.

43. This interpretation was suggested to me by Arthur Fine.

44. Immanuel Kant's Critique of Pure Reason, translated by Norman Kemp Smith (London, Macmillan & Co., 1956), p. 504.

45. Malcolm, op. cit. (note 3), p. 50. By "logical equivalence" in this discussion must be meant mutual entailment, not complete identity of meaning.

46. R. E. Allen, "The Ontological Argument," The Philosophical Review, Vol. LXX, No. 1 (January, 1961), p. 58; the quotation is from note 5. Allen uses this reasoning in support of a somewhat different point; he is arguing that "God necessarily exists," which he thinks does ascribe a predicate to God, must therefore not be regarded as implying either "It is necessary that God exists" or "God exists."

47. J. N. Findlay, "Can God's Existence Be Disproved?", Mind, Vol. LVII (1948); reprinted in several collections. My references are to the reprint in The Ontological Argument: From St. Anselm to Contemporary Philosophers, edited by Alvin Plantinga (Doubleday Anchor Books, Garden City, N.Y., 1965), pp. 111-122. The present reference is to p. 112.

48. Ibid., pp. 118-120.

49. Ibid., pp. 113, 115.

50. Ibid., p. 116.

51. Ibid., p. 117.

52. Malcolm, op. cit. (note 3), p. 48.

53. Penelhum, op. cit. (note 39), p. 90.

54. Malcolm, op. cit. (note 3), p. 48.

55. I will not discuss how Hartshorne might reply to Malcolm on this point. Hartshorne conceives God's existence as logically necessary but not timeless. He would presumably say that God's beginning or ceasing to exist is logically impossible because it is logically necessary that He exists at all times. Whatever defense Hartshorne might make of this position would not be an argument which could be used by someone who was opposing Malcolm's claim that God must be conceived as a logically necessary being.

56. Penelhum, op. cit. (note 39), p. 90.

57. Hartshorne, The Logic of Perfection (see note 2), p. 38.

58. Ibid., p. 38.

59. These terms are suggested by John Hick and Terence Penelhum. Hick's most extensive treatment of this subject is "Necessary Being," Scottish Journal of Theology, vol. 14, No. 4 (December, 1961), pp. 353-369. Penelhum discusses the matter in "Divine Necessity," Mind, Vol. LXIX (1960); my references are to a reprint in The Cosmological Arguments: A Spectrum of Opinion, edited by Donald R. Burrill (Doubleday Anchor Books, Garden City, N.Y., 1967), pp. 143-161.

60. Alvin Plantinga, "Necessary Being," in Alvin Plantinga, ed., Faith and Philosophy (Wm. B. Eerdmans Publishing Co., Grand Rapids, 1964); my references are to a reprint of the essay in Burrill, ed., op. cit. (note 59). So far as I know, Plantinga does not use the expressions "factual necessity" and "factually necessary." But he agrees with those who do use them, and the terms are useful in discussing his position.

61. Ibid., p. 140, and Plantinga, "A Valid Ontological Argument?" in The Philosophical Review, Vol. LXX, no. 1 (January, 1961), pp. 99-100.

62. Plantinga, "Necessary Being" (see note 60), p. 140.

63. Ibid., pp. 127-128.

64. Ibid., p. 128.

65. On the fact that no guarantees of the future are provided by saying that only an individual to whom certain things will (or will not) happen could count as God, see Marilyn McCord Adams, "Is the Existence of God a 'Hard' Fact?" The Philosophical Review, Vol. LXXVI, No. 4 (October 1967), pp. 492-503.

66. Plantinga, "Necessary Being," (see note 60), p. 140.

67. Plantinga makes another point about necessary being. He notes that if it is part of the concept of God that God's existence does not depend causally on anything else, it does not make sense to ask "Why does God exist?" if that is "a question asking for His causal conditions." (Ibid., pp. 140-141.) In fact, Plantinga appears to define "necessary being" in terms of this point. I have not discussed it, however, because it seems to me to be a derivative point, and is bound up with issues about explanation which we are not discussing here.

68. Plantinga, "Necessary Being" (see note 60), p. 141.

69. Ibid., p. 140.

70. Ibid., p. 141.

71. Plantinga, "A Valid Ontological Argument?" (see note 61), pp. 99-100.

72. Robert C. Coburn, "Professor Malcolm on God," The Australasian Journal of Philosophy, vol. 41 (1963), pp. 143-162; cf. Kurt Baier, "Existence," Proceedings of the Aristotelian Society, v. 61 (1960-61), pp. 143-162.

73. J. J. C. Smart, "The Existence of God," Church Quarterly Review (1955); I quote from a reprint in Burrill, ed. op. cit. (note 59), p. 262.

74. Kant, Critique of Pure Reason (see note 44), p. 504.

75. Ibid., p. 506.

76. R. E. Allen, "The Ontological Argument" (see note 46), p. 58.

77. Paul Edwards, "The Cosmological Argument," in The Rationalist Annual for the Year 1959 (Pemberton Publishing Co., London); I quote from a reprint in Burrill, ed., op. cit. (note 59), p. 116.

78. John Hick, "A Critique of the 'Second Argument,'" in Hick and McGill, eds., op. cit. (note 16), p. 342.

79. Terence Penelhum, "Divine Necessity" (see note 59), p. 151.

80. Jerome Shaffer, "Existence, Predication and the Ontological Argument," *Mind*, vol. LXXI (1962), reprinted in Hick and McGill, eds., *op. cit.* (note 16), p. 238.

81. *Ibid.*, p. 243.

82. Malcolm, "Anselm's Ontological Arguments" (see note 3), pp. 54-55. See Findlay, "Can God's Existence Be Disproved?" (see note 47), p. 119.

83. Malcolm, "Anselm's Ontological Arguments" (see note 3), p. 55.

84. *Ibid.*, p. 56.

85. See, e.g., Hintikka, "Modality and Quantification," *Theoria*, Vol. 27 (1961), pp. 119-128.

86. David K. Lewis, "Counterpart Theory and Quantified Modal Logic," *The Journal of Philosophy*, Vol. 65, no. 5 (March 7, 1968), pp. 113-126.

87. David Hume, *Dialogues Concerning Natural Religion*, Edited, with an introduction, by Norman Kemp Smith, second edition (The Library of Liberal Arts, Bobbs-Merrill Co., Indianapolis & New York, undated), pp. 188-190.

88. *Ibid.*, p. 189.

89. Ibid., p. 190. The quotation within the passage, expressly acknowledged by Hume, is from Samuel Clarke; the emphases are in the text of Hume.

90. See Kemp Smith's note *in loc.* (*ibid.*, p. 190).

91. David Hume, *A Treatise of Human Nature*, ed. L. A. Selby-Bigge (Oxford at the Clarendon Press, 1960), I.iv.6, p. 252.

92. *Ibid.*, I.iv.5, p. 233.

93. Kant, *Critique of Pure Reason* (see note 44), pp. 65-74.

94. Findlay, "Can God's Existence Be Disproved?" (see note 47), p. 112.

95. Kurt Baier, "Existence" (see note 72), p. 22.

96. *Ibid.*, p. 32.

97. *Ibid.*, p. 33.

98. *Ibid.*, p. 25.

99. *Ibid.*, p. 22.

100. *Ibid.*, p. 22.

101. *Ibid.*, p. 32.

102. Shaffer, *op. cit.* (note 80), p. 245.

103. Hartshorne, *The Logic of Perfection* (see note 2), pp. 92-94. *A Natural Theology for Our Time* (Open Court, LaSalle, Ill., 1967), pp. 76ff.

104. Findlay, *op. cit.* (note 47), p. 119.

105. *Ibid.*, p. 119.

106. Malcolm, "Anselm's Ontological Arguments" (see note 3), p. 50.

107. Romans 9:20-21 (*The Holy Bible*, Revised Standard Version (Thomas Nelson & Sons, New York, 1959).)

108. 4 *Sent.* 9, E-F, translated in Frederick Copleston, *A History of Philosophy*, Volume III: *Late Mediaeval and Renaissance Philosophy*, Part I: *Ockham to the Speculative Mystics* (Doubleday Image Books, Garden City, New York, 1963), p. 116.

109. II Corinthians 5:10, *The Holy Bible* (see note 107).

110. I am responsible for the translation from the French of Leibniz's letter to Jaquelot, Nov. 20, 1702, Vol. III, pp. 443-444 in *Die philosophischen Schriften von Gottfried Wilhelm Leibniz*, ed. C. I. Gerhardt, 7 vols. (Berlin, 1875-1890).

111. A hint of the argument of this paragraph might be found in some remarks of J. N. Findlay, *op. cit.* (see note 47), pp. 121-122. More than a hint of it might be found in M. J. Charlesworth's introduction to his *St. Anselm's Proslogion* (Oxford at the Clarendon Press, 1965), pp. 70-77. Charlesworth holds that as regards the possibility or impossibility of God's existence "the onus of proof or disproof...lies equally on both sides" (p. 72). A similar point is made by John O. Nelson, in "Modal Logic and the Ontological Proof for God's Existence," *The Review of Metaphysics*, Vol. XVII, No. 2 (Dec., 1963), p. 242.

112. Leibniz, letter to Jaquelot, Nov. 20, 1702 (see note 110).

113. Malcolm, *op. cit.* (note 3), p. 47.

114. Malcolm, "Anselm's Ontological Arguments" (see note 3), pp. 59-60.

115. *Ibid.*, p. 49; emphasis mine.

116. *Ibid.*, pp. 61, 60.

117. "George Edward Moore," in *Knowledge and Certainty: Essays and Lectures* by Norman Malcolm (Prentice-Hall, Inc., Englewood Cliffs, N.J., 1963), pp. 163-183.

118. *Ibid.*, p. 178.

119. *Ibid.*, pp. 178-179.

120. Ibid., p. 179.

121. Malcolm, "Anselm's Ontological Arguments," (see note 3), p. 60.

122. Norman Malcolm, Critical Notice on Alan White's G. E. Moore: A Critical Exposition, in Mind, vol. LXIX (January, 1960), pp. 92-98. Robert Coburn, in "Professor Malcolm on God" (see note 72), pp. 156-157, calls attention to this review, and suggests that it would be uncharitable to suppose that the two positions are contradictory.

123. Malcolm, "George Edward Moore" (see note 117), pp. 181, 182.

124. My confidence in this interpretation of Malcolm is based on a conversation with him in which he made it quite clear that he took this view.

125. Malcolm, "George Edward Moore" (see note 117), p. 179.

126. Coburn, "Professor Malcolm on God" (see note 72), p. 157.

127. Ibid., p. 159.

128. Ibid., p. 159.

129. The image is Malcolm's. He has made this objection to me, using the words, "So we may decide to go in a new direction. But that doesn't mean that there was a contradiction lurking there all the time."

130. Ludwig Wittgenstein, Philosophical Investigations, translated by G. E. M. Anscombe, second edition (Basil Blackwell, Oxford, 1958), p. 77e. I have revised Miss Anscombe's translation at some points.

131. Ibid., I, 185-188 (pp. 74e-76e).

132. Ibid., I, 187 (pp. 75e-76e).

133. See ibid., I, 240-242 (p. 88e), and Ludwig Wittgenstein, Remarks on the Foundations of Mathematics, translated by G. E. M. Anscombe, revised edition (Basil Blackwell, Oxford, 1964), I. 140-141 (pp. 42-43).

134. Frederic Morton, Review of Confessions of a Disloyal European by Jan Myrdal, in The New York Times Book Review, May 26, 1968, p. 1.

135. Malcolm, "Anselm's Ontological Arguments" (see note 3), p. 61.

136. Ibid., p. 61.

137. Rudolf Carnap, "Empiricism, Semantics, and Ontology," first published in Revue internationale de philosophie (1950), revised and reprinted in Meaning, and Necessity: A Study in Semantics and Modal Logic, by Rudolf Carnap, Enlarged Edition (The University of Chicago Press, Chicago, 1960), pp. 205-221.

138. Carnap, op. cit. (note 137), p. 209.

139. _Ibid_., p. 209.

140. _Ibid_., p. 209.

141. _Ibid_., p. 207.

142. _Ibid_., p. 214.

143. _Ibid_., p. 213.

144. D. Z. Phillips, _The Concept of Prayer_ (Shocken Books, New York, 1966).

145. Phillips, _op_. _cit_. (note 144), p. 13.

146. _Ibid_., p. 13; the examples are all Phillips's.

147. See _ibid_., p. 14.

148. Malcolm,"Anselm's Ontological Arguments," (see note 3), p. 62.

149. Phillips, _op_. _cit_. (note 144), p. 21.

150. _Ibid_., p. 25.

151. _Ibid_., p. 18.

152. _Ibid_., p. 27.

153. _Ibid_., p. 149 (both the quoted phrases are from this page).

154. _Ibid_., p. 160.

155. _Ibid_., pp. 149-150.

156. Carnap, _op_. _cit_. (note 137), p. 221.

157. _Ibid_., p. 214.

158. _Ibid_., p. 221.

159. Phillips, _The Concept of Prayer_, (see note 144), p. 159.

160. _Ibid_., p. 19.

161. _Ibid_., p. 19.

162. _Ibid_., p. 19.

163. _Ibid_., p. 20.

164. His book is concerned "with the _point_ of religious worship" (_ibid_., p. 23); but it is based on philosophical arguments, he claims (p. 29).

165. Phillips, "Philosophy, Theology, and the Reality of God," Philosophical Quarterly, vol. 13 (1963), no. 53, p. 350.

166. Phillips, The Concept of Prayer (see note 144), p. 160.

167. Phillips, "Philosophy, Theology, and the Reality of God," (see note 165), p. 350.

168. Phillips, The Concept of Prayer (see note 144), p. 150.

169. Phillips, "Philosophy, Theology, and the Reality of God," (see note 165), p. 348. Emphasis is in the original.

170. Phillips, The Concept of Prayer, (see note 144), p. 159.

171. Ibid., p. 159.

172. It is proved as follows.

(1) $\sim Np \supset N\sim Np$	Axiom 4.
(2) $\sim N\sim Np \supset \sim\sim Np$	(1), transposition.
(3) $\sim N\sim Np \supset Np$	(2), double negation.
(4) $MNp \supset Np$	(3), definition of "M".

BIBLIOGRAPHY

Abelson, Raziel. "Not Necessarily," The Philosophical Review, LXX (1961), 67-84.

Adams, Marilyn McCord. "Is the Existence of God a 'Hard' Fact?" The Philosophical Review, LXXVI (1967), 492-503.

Allen, R. E. "The Ontological Argument," The Philosophical Review, LXX (1961), 56-66.

Alston, William. "The Ontological Argument Revisited," The Philosophical Review, LXIX (1960), 452-474.

Anselm. Obras Completas de San Anselmo. Edited by P. Julian Alamida, O.S.B. Vol. I. Madrid, Biblioteca de Autores Cristianos, 1952. The Latin text is that established by F. S. Schmitt, O.S.B.

Anselm. St. Anselm: Basic Writings: Proslogium, Monologium, Gaunilon's On Behalf of the Fool, Cur Deus Homo. Translated by S. N. Deane. Second edition. LaSalle, Open Court Publishing Company, 1962.

Anselm. St. Anselm's Proslogion with A Reply on Behalf of the Fool by Gaunilo and The Author's Reply to Gaunilo. Translated with an Introduction and Philosophical Commentary by M. J. Charlesworth. Oxford at the Clarendon Press, 1965.

Åqvist, Lennart. "Results Concerning Some Modal Systems that Contain S2," Journal of Symbolic Logic, XXIX (1964), 79-87.

Baier, Kurt. "Existence," Proceedings of the Aristotelian Society, LXI (1960-1961), 19-40.

Barth, Karl. Anselm: Fides Quaerens Intellectum. Translated by Ian Robertson. London, S.C.M. Press and Richmond, Virginia, John Knox Press, 1960.

Baumer, William H. "Anselm, Truth and Necessary Being," Philosophy, XXXVII (1962), 257ff.

Baumer, William H. "Ontological Arguments Still Fail," The Monist, L (1960), 130-144.

Becker, Oskar. "Zur Logik der Modalitäten," Jahrbuch für Philosophie und phänomenologische Forschung, Elfter Band. Halle, 1930, 497-548.

The Holy Bible. The Revised Standard Version, containing Old and New Testaments, Reference Edition with Concise Concordance. New York, Thomas Nelson & Sons, 1959.

Broad, C. D. "Arguments for the Existence of God: I," The Journal of Theological Studies, XL (1939), 16-30.

Brown, T. Patterson. "Professor Malcolm on 'Anselm's Ontological Arguments,'" Analysis, XXII (1961), 12-14.

Cameron, J. M. "R. F. Holland On 'Religious Discourse And Theological Discourse,'" Australasian Journal of Philosophy, XXXIV (1956), 203-207.

Carnap, Rudolf. "Empiricism, Semantics, and Ontology," Revue internationale de philosophie (1950). Revised and reprinted in Meaning and Necessity: A Study in Semantics and Modal Logic. Enlarged edition. Chicago, The University of Chicago Press, 1960, 205-221.

Carnap, Rudolf. Meaning and Necessity: A Study in Semantics and Modal Logic. Enlarged edition. Chicago, The University of Chicago Press, 1960.

Carnap, Rudolf. "Modalities and Quantification," Journal of Symbolic Logic, XI (1946), 34-36.

Charlesworth, M. J. St. Anselm's Proslogion with A Reply on Behalf of the Fool by Gaunilo and The Author's Reply to Gaunilo. Translated with an Introduction and Philosophical Commentary by M. J. Charlesworth. Oxford at the Clarendon Press, 1965.

Church, Alonzo. "A Formulation of the Logic of Sense and Denotation," Structure, Method and Meaning: Essays in Honor of Henry M. Sheffer. With a forward by Felix Frankfurter. Edited by Paul Henle, Horace M. Kallen, and Suzanne K. Langer. New York, The Liberal Arts Press, 1961, 3-24.

Coburn, Robert C. "Professor Malcolm on God," Australasian Journal of Philosophy, XLI (1963), 143-162.

Descartes, René. The Philosophical Works of Descartes. Translated by Elizabeth S. Haldane and G. R. T. Ross. 2 vols. New York, Dover Publications, Inc., 1955.

Dugundji, James. "Note on a Property of Matrices for Lewis and Langford's Calculi of Propositions," Journal of Symbolic Logic, V (1940), 150-151.

Duns Scotus. Opus oxoniense, I, dist. II, q. i, art. 1. Text and translation in Duns Scotus: Philosophical Writings. A selection edited and translated by Allan Wolter, O. F. M. London, Thomas Nelson & Sons, Ltd., 1963, 34-52.

Edwards, Paul. "The Cosmological Argument," The Rationalist Annual for the Year 1959. London, Pemberton Publishing Company. Reprinted in The Cosmological Arguments: A Spectrum of Opinion. Edited by Donald R. Burrill. Garden City, New York, Anchor Books, 1967, 101-124.

Feys, Robert. "Les systèmes formalisés des modalités aristotéliciennes," *Revue philosophique de Louvain*, XLVIII (1950), 478-509.

Findlay, J. N. "Can God's Existence Be Disproved?", *Mind*, LVII (1948). Reprinted in several collections including *The Ontological Argument from St. Anselm to Contemporary Philosophers*. Edited by Alvin Plantinga. Garden City, New York, Anchor Books, 1965.

Findlay, J. N. "Some Reflections on Necessary Existence," in *The Hartshorne Festschrift: Process and Divinity*. Philosophical essays presented to Charles Hartshorne and edited by William L. Reese and Eugene Freeman. La Salle, Illinois, Open Court Publishing Company, 1964, 515-527.

Flint, Robert. *Theism*. The Baird Lecture for 1876, 7th ed. Revised. New York, Charles Scribner's Sons, 1901.

Franklin, R. L. "Necessary Being," *Australasian Journal of Philosophy*, XXXV (1957), 97-110.

Franklin, R. L. "Some Sorts of Necessity," *Sophia*, III (1964), 15-24.

Grant, C. K. "The Ontological Disproof of the Devil," *Analysis*, XVII (1957), 71-72.

Grave, S. A. "The Ontological Argument of St. Anselm," *Philosophy*, XXVII (1952), 30-38.

Gunderson, Keith and Routley, Richard. "Mr. Rescher's Reformulation of the Ontological Proof," *Australasian Journal of Philosophy*, XXXVIII (1960), 246-252.

Haldén, Sören. "On the Semantic Non-Completeness of Certain Lewis Calculi," *Journal of Symbolic Logic*, XVI (1951), 127-129.

Hardin, Clyde Laurence. "An Empirical Refutation of the Ontological Argument," *Analysis*, XXII (1961), 10-12.

Hartshorne, Charles. *Anselm's Discovery: A Re-examination of the Ontological Proof for God's Existence*. La Salle, Illinois, Open Court Publishing Company, 1965.

Hartshorne, Charles. "The Formal Validity and Real Significance of the Ontological Argument," *The Philosophical Review*, LIII (1944), 225-245.

Hartshorne, Charles. "How Some Speak and Yet Do Not Speak of God," *Philosophy and Phenomenological Research*, XXIII (1962), 274-276.

Hartshorne, Charles. "Is the Denial of Existence Ever Contradictory?" *The Journal of Philosophy*, LXIII (1966), 85-93.

Hartshorne, Charles. "The Logic of the Ontological Argument," *The Journal of Philosophy*, LVIII (1961), 471-473.

Hartshorne, Charles. The Logic of Perfection and Other Essays in Neoclassical Metaphysics. La Salle, Illinois, Open Court Publishing Company, 1962.

Hartshorne, Charles. Man's Vision of God and the Logic of Theism. Chicago and New York, Willet, Clarke & Company, 1941.

Hartshorne, Charles. A Natural Theology for Our Time. La Salle, Illinois, Open Court Publishing Company, 1967.

Hartshorne, Charles. "Tillich's Doctrine of God," in The Library of Living Theology, Volume I: The Theology of Paul Tillich. Edited by Charles W. Kegley and Robert W. Bretall. New York, The Macmillan Company, 1961, 164-195.

Hartshorne, Charles. "What Did Anselm Discover," in The Many-Faced Argument: Recent Studies on the Ontological Argument for the Existence of God. Edited by John Hick and Arthur C. McGill. New York, The Macmillan Company, 1967, 321-333.

Hartshorne, Charles. "Whitehead's Idea of God," in The Library of Living Philosophers, Volume III: The Philosophy of Alfred North Whitehead. Edited by Paul Arthur Schilpp. Evanston and Chicago, Northwestern University Press, 1941, 513-559.

Henle, Paul. "Uses of the Ontological Argument," The Philosophical Review, LXX (1961), 102-109.

Henrich, D. Der ontologische Gottesbeweis: sein Problem und seine Geschichte in der Neuzeit. Tübingen, J. C. B. Mohr, 1960.

Henry, Desmond Paul. The Logic of Saint Anselm. Oxford at the Clarendon Press, 1967.

Hick, John. "A Critique of the 'Second Argument,'" The Many-Faced Argument: Recent Studies on the Ontological Argument for the Existence of God. Edited by John Hick and Arthur C. McGill. New York, The Macmillan Company, 1967, 341-356.

Hick, John. "Necessary Being," Scottish Journal of Theology, XIV (1961), 353-369.

Hick, John. "Ontological Argument for the Existence of God," The Encyclopedia of Philosophy. Paul Edwards, Editor in Chief. New York, The Macmillan Company and the Free Press, 1967. Vol. V, 538-542.

Hick, John and McGill, Arthur C. The Many-Faced Argument: Recent Studies on the Ontological Argument for the Existence of God. Edited by John Hick and Arthur C. McGill. New York, The Macmillan Company, 1967. This anthology includes an invaluable comprehensive bibliography on so-called ontological arguments.

Hintikka, Jaakko. "Modality and Quantification," Theoria, XXVII (1961), 119-128.

Hintikka, Jaakko. "A Program and a Set of Concepts for Philosophical Logic," The Monist, LI (1967), 69-92.

Hintikka, Jaakko. "Studies in the Logic of Existence and Necessity," The Monist, L (1966), 55-76.

Holland, R. F. "Religious Discourse and Theological Discourse," Australasian Journal of Philosophy, XXXIV (1956), 147-163.

Howe, Leroy T. "Conceivability and Ontological Argument," Sophia, V (1966), 3-8.

Hudson, W. D. "An Attempt to Defend Theism," Philosophy, XXXIX (1964), 18-28.

Huggett, W. J. "The Nonexistence of Ontological Arguments," The Philosophical Review, LXXI (1962), 377-379.

Hughes, George E. "Has God's Existence Been Disproved? A Reply to Professor J. N. Findlay," Mind, N.S. LVIII (1949), 67-74.

Hume, David. Dialogues Concerning Natural Religion. Edited, with an Introduction, by Norman Kemp Smith. Second Edition. New York, The Library of Liberal Arts, undated.

Hume, David. A Treatise of Human Nature. Edited by L. A. Selby-Bigge. Oxford at the Clarendon Press, 1960.

Hutchings, P. Æ. "God and Existence," Sophia, II (1963), 1-10.

Hutchings, P. Æ. "Necessary Being and Some Types of Tautology," Philosophy, XXXIX (1964), 1-17.

Jalabert, Jacques. Le Dieu de Leibniz. Paris, Presses Universitaires de France, 1960.

James, William. "The Sentiment of Rationality," in The Will to Believe, and Other Essays in Popular Philosophy. New York, Dover Publications, Inc., 1956--bound with a reprint of James's Human Immortality.

Kant, Immanuel. Immanuel Kant's Critique of Pure Reason. Translated by Norman Kemp Smith. London, Macmillan and Company, Ltd., 1956.

Kenny, Anthony. "God and Necessity," British Analytical Philosophy. Edited by Bernard Williams and Alan Montefiore. New York, The Humanities Press, 1966, 131-151.

Kenny, Anthony. "Necessary Being," Sophia, I (1962), 1-8.

Kitely, Murray. "Existence and Ontological Argument," Philosophy and Phenomenological Research, XVIII (1958), 533-535.

Kleene, Stephan Cole. Introduction to Metamathematics. Amsterdam, North-Holland Publishing Company, 1964.

Kneale, William and Martha. The Development of Logic. Oxford at the Clarendon Press, 1962.

Koyré, Alexandre. L'idée de Dieu dans la philosophie de St. Anselme. Paris, Éditions Ernest Leroux, 1923.

Kripke, Saul. "A Completeness Theorem in Modal Logic," Journal of Symbolic Logic, XXIV (1959), 1-14.

Kripke, Saul. "Semantical Analysis of Modal Logic I: Normal Propositional Calculi," Zeitschrift für mathematische Logik und Grundlagen der Mathematik, Band IX (1963), 67-96.

Kripke, Saul A. "Semantical Analysis of Modal Logic II. Non-normal Modal Propositional Calculi," The Theory of Models: Proceedings of 1963 International Symposium at Berkeley. Edited by J. W. Addison, Leon Henkin, and Alfred Tarski. Amsterdam, North-Holland Publishing Company, 1965, 206-220.

Leibniz, G. W. Die philosophischen Schriften von Gottfried Wilhelm Leibniz. Edited by C. I. Gerhardt. 7 vols. Berlin, 1875-1890.

Lejewski, C. "Logic and Existence," British Journal for the Philosophy of Science, V (1954).

Lemmon, E. J. "Is There Only One Correct System of Modal Logic?" The Aristotelian Society: Supplementary Volume XXXIII (1959), 23-40.

Lemmon, E. J. "New Foundations for Lewis Modal Systems," Journal of Symbolic Logic, XXII (1957), 176-186.

Lewis, Clarence Irving and Langford, Cooper Harold. Symbolic Logic, 2nd edition. New York, Dover Publications, Inc., 1959.

Lewis, David K. "Counterpart Theory and Quantified Modal Logic," Journal of Philosophy, LXV (1968), 113-126.

McKinsey, J. C. C. "Systems of Modal Logic which are not Unreasonable in the Sense of Halldén," Journal of Symbolic Logic, XVIII (1953), 109-113.

Malcolm, Norman. "Anselm's Ontological Arguments," The Philosophical Review, LXIX (1960), 41-62.

Malcolm, Norman. "Critical Notice on Alan White's G. E. Moore: A Critical Exposition," Mind, LXIX (1960), 92-98.

Malcolm, Norman. "George Edward Moore," in Knowledge and Certainty: Essays and Lectures. Englewood Cliffs, N. J., Prentice Hall, Inc., 1963, 163-183.

Malcolm, Norman. "Is it a Religious Belief that 'God Exists'?" in Faith and the Philosophers. Edited by John Hick. New York, St. Martin's Press, Inc., 1964, 103-110.

Malcolm, Norman. "Wittgenstein's *Philosophical Investigations*," *The Philosophical Review*, LXIII (1954), 530-59. Reprinted in Malcolm's *Knowledge and Certainty*, 96-129.

Mates, Benson. *Stoic Logic*. Berkeley and Los Angeles, 1961.

Morton, Frederic. "Review of *Confessions of a Disloyal European* by Jan Myrdal," *The New York Times Book Review*, May 26, 1968, 1.

Nelson, John O. "Modal Logic and the Ontological Proof for God's Existence," *The Review of Metaphysics*, XVII (1963), 235-242.

Parry, William Tuthill. "Modalities in the *Survey* System of Strict Implication," *The Journal of Symbolic Logic*, IV (1939), 137-154.

Penelhum, Terence. "Divine Necessity," *Mind*, LXIX (1960). Reprinted in *The Cosmological Arguments: A Spectrum of Opinion*. Edited by Donald R. Burrill. Garden City, New York, Anchor Books, 1967, 143-161.

Penelhum, Terence. "On the Second Ontological Argument," *The Philosophical Review*, LXX (1961), 85-92.

Plantinga, Alvin. *God and Other Minds: A Study of the Rational Justification of Belief in God.* Ithaca, New York, Cornell University Press, 1967.

Plantinga, Alvin. "Necessary Being," in *Faith and Philosophy*. Edited by Alvin Plantinga. Grand Rapids, Michigan, William B. Eerdmans Publishing Company, 1964. Reprinted in *The Cosmological Arguments: A Spectrum of Opinion*. Edited by Donald R. Burrill. Garden City, New York, Anchor Books, 1967, 125-141.

Plantinga, Alvin. "A Valid Ontological Argument?" *The Philosophical Review*, LXX (1961), 93-101. Reprinted in *The Ontological Argument from St. Anselm to Contemporary Philosophers*. Edited by Alvin Plantinga. Garden City, New York, Anchor Books, 1965, 160-171.

Phillips, D. Z. *The Concept of Prayer*. New York, Shocken Books, 1966.

Phillips, D. Z. "Philosophy, Theology, and the Reality of God," *Philosophical Quarterly*, XIII (1963), 344-350.

Prior, A. N. "Existence in Lesniewski and in Russell," *Formal Systems and Recursive Functions: Proceedings of the Eighth Logic Colloquium, Oxford, July, 1963*. Edited by J. N. Crossley and M. A. E. Dummett. Amsterdam, North-Holland Publishing Company, 1965, 149-155.

Prior, A. N. *Formal Logic*. 2nd ed. Oxford at the Clarendon Press, 1963.

Prior, A. N. "Logic, Modal," *The Encyclopedia of Philosophy*. Paul Edwards, Editor in Chief. New York, The Macmillan Company and the Free Press, 1967, Vol. V, 5-12.

Prior, A. N. Time and Modality, Being the John Locke Lectures for 1955-6 delivered in the University of Oxford. Oxford at the Clarendon Press, 1957.

Quine, Willard Van Orman. Methods of Logic. Revised edition. New York, Holt, Reinhart, and Winston, 1964.

Quine, Willard Van Orman. "Notes on Existence and Necessity," Journal of Philosophy, XL (1943), 113-127.

Quine, Willard Van Orman. "The Problem of Interpreting Modal Logic," Journal of Symbolic Logic, XII (1947), 43-48.

Rainer, A. C. A. "Necessity and God: a Reply to Professor Findlay," Mind, N.S. LVIII (1949), 75-77.

Rescher, Nicholas. "The Logic of Existence," The Philosophical Review, LXVIII (1959), 160-162.

Rescher, Nicholas. "The Ontological Proof Revisited," Australasian Journal of Philosophy, XXXVII (1959), 138-148.

Resnick, Lawrence. "A Logical Refutation of Mr. Hardin's Argument," Analysis, XXII, 90-91.

Richman, Robert J. "The Devil and Dr. Waldman," Philosophical Studies, XI (1960), 78-80.

Richman, Robert J. "The Ontological Proof of the Devil," Philosophical Studies, IX (1958), 63-64.

Ross, J. F. "God and Logical Necessity," Philosophical Quarterly, XI (1961), 22-27.

Routley, R. "Some Things Do Not Exist," Notre Dame Journal of Formal Logic, VII (1966), 251-276.

Russell, Bertrand. A Critical Exposition of the Philosophy of Leibniz With an Appendix of Leading Passages. 2nd ed. London, George Allen & Unwin Ltd., 1964.

Ryle, Gilbert; Warnock, Mary; and Quinton, A. M. "Final Discussion," in The Nature of Metaphysics. Edited by D. F. Pears. London, Macmillan & Company, Ltd., 1957, 142-164.

Shaffer, Jerome. "Existence, Predication and the Ontological Argument," Mind, LXXI (1962). Reprinted in The Many-Faced Argument: Recent Studies on the Ontological Argument for the Existence of God. Edited by John Hick and Arthur C. McGill. New York, The Macmillan Company, 1967, 226-245.

Scholz, Heinrich. Mathesis Universalis: Abhandlungen zur Philosophie als strenge Wissenshaft. Herausgegeben von Hans Hermes, Friedrich Kambartel, Joachim Ritter. Basel, Stuttgart, Benno Schwabe & Co. Verlag, 1961.

Scott, G. E. "Quine, God, and Morality," The Monist, L (1960), 77-86.

Smart, J. J. C. "The Existence of God," Church Quarterly Review (1955). Reprinted in The Cosmological Arguments: A Spectrum of Opinion. Edited by Donald R. Burrill. Garden City, New York, Anchor Books, 1967, 255-278.

Smart, R. N. "The Perfect Good," The Australasian Journal of Philosophy, XXXIII (1955), 189-194.

Srzednicki, Jan. "The Ontological Proof and the Concept of 'Absolute'," Sophia, IV (1965), 28-32.

Stolz, Anselm. "Anselm's Theology in the Proslogion," translated by Arthur McGill in The Many-Faced Argument: Recent Studies on the Ontological Argument for the Existence of God. Edited by John Hick and Arthur McGill. New York, The Macmillan Company, 1967, 183-206.

Stroud, Barry. "Wittgenstein and Logical Necessity," The Philosophical Review, LXXIV (1965), 504-518. Reprinted in Wittgenstein: The Philosophical Investigations. Edited by George Pitcher. Garden City, New York, Anchor Books, 1966, 477-496.

Tarski, Alfred. "Einige Betrachtungen über die Begriffe der ω-Widerspruchsfreiheit und der ω-Vollständigkeit," Monatshefte für Mathematik und Physik, XL (1933), 97-112.

Tillich, Paul. Systematic Theology, Vol. I. Chicago, The University of Chicago Press, 1961.

Waldman, Theodore. "A Comment upon the Ontological Proof of the Devil," Philosophical Studies, X (1959), 49-50.

Weingartner, Paul. Deskription, Existenz, und Analytizität. Edited by Paul Weingartner. Pustet, Salzburg, 1966.

Whitehead, Alfred North. Process and Reality: An Essay in Cosmology. New York and Evanston, Harper Torhcbooks, 1960.

Williams, B. A. O. "Metaphysical Arguments" in The Nature of Metaphysics. Edited by D. F. Pears. London, Macmillan & Company Ltd., 1957, 39-60.

Williams, C. J. F. "God and 'Logical Necessity,'" Comment on Ross in Philosophical Quarterly, XI (1961), 356-359.

Wilson, Martin. "The Meaningfulness of Religious Statements," Sophia, II (1963), 25-30.

Wittgenstein, Ludwig. Philosophical Investigations, German text and English translation. Translated by G. E. M. Anscombe. 2nd edition. Oxford, Basil Blackwell, 1958.

Wittgenstein, Ludwig. Remarks on the Foundations of Mathematics. German text edited by G. H. von Wright, R. Rhees, and G. E. M. Anscombe, with translation by G. E. M. Anscombe. Oxford, Basil Blackwell, 1956.

Wolfson, Harry Austryn. Philo: Foundations of Religious Philosophy in Judaism, Christianity, and Islam, Vol. I. 2nd printing, revised. Cambridge, Massachusetts, Harvard University Press, 1948.

Wolfson, Harry Austryn. Religious Philosophy: A Group of Essays. Cambridge, Massachusetts, The Belknap Press of Harvard University Press, 1961.

von Wright, Georg Henrik. An Essay on Modal Logic. Amsterdam, North-Holland Publishing Company, 1951.

von Wright, Georg Henrik. Logical Studies. London, Routledge and Kegan Paul, 1957.

Zabeeh, Farhang. "Ontological Argument and How and Why Some Speak of God," Philosophy and Phenomenological Research, XXII (1961), 206-215.

Ziff, Paul. "About 'God,'" in Religious Experience and Truth: A Symposium. Edited by Sidney Hook. New York, New York University Press, 1961, 195-202.

CORN
FOUNDED